DOCUMENT RESUME

ED 120 910 95 EA 008 042

AUTHOR	Golladay, Mary A.
TITLE	The Condition of Education: A Statistical Report on the Condition of Education in the United States, Together with a Description of the Activities of the National Center for Education Statistics. 1976 Edition.
INSTITUTION	National Center for Education Statistics (DHEW), Washington, D.C.
REPORT NO	NCES-76-400
PUB DATE	Mar 76
NOTE	320p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock No. 017-080-01521-8, $4.40)
EDRS PRICE	MF-$0.83 HC-$16.73 Plus Postage
DESCRIPTORS	*Educational Finance; *Elementary Secondary Education; Graphs; *National Surveys; Post Secondary Education; Program Descriptions; *School Personnel; *School Statistics; Statistical Data; Tables (Data)
IDENTIFIERS	*National Center for Education Statistics; NCES

ABSTRACT

This publication consists primarily of several hundred charts, graphs, and tables that present a wide variety of educational statistics for the United States through and including the 1974-75 school year. The largest section of the report is organized into eight chapters that each present statistics on a different dimension of American education. These chapters focus in turn on students and schools, outcomes of schooling, concerns of elementary and secondary education, participation in postsecondary education, relationships between education and work, educational personnel, elementary and secondary school finance, and comparative profiles of education in the United States and other countries. Also included in the report are a short section that provides technical information on the collection and compilation of the various statistics and a separate section that presents a detailed summary of the program and plans of the National Center for Education Statistics for fiscal years 1976 and 1977. (JG)

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The Condition of Education

1976 Edition

EA 008 042

National
Center for
Education
Statistics

2

The Condition of Education

A Statistical Report on the Condition of Education in the United States

together with

A Description of the Activities of

The National Center for Education Statistics

Transmitted to the Congress

March 1976

NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1976

For sale by the Superintendent of Documents, U.S. Government Printing Office
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Stock Number 017-080-01521-8

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
THE ASSISTANT SECRETARY FOR EDUCATION
WASHINGTON

March 1, 1976

To the Congress of the United States:

The annual report of the activities of the National Center for Education Statistics and of the Condition of Education in the United States is herewith respectfully submitted in accordance with Section 406(d)(1) of the Education Amendments of 1974.

Sincerely,

Virginia Y. Trotter

Virginia Y. Trotter

NCES 76-400

THE CONDITION OF EDUCATION

1976 Edition

by

Mary A. Golladay

U.S. Department of Health, Education, and Welfare
David Mathews, *Secretary*

Education Division
Virginia Y. Trotter, *Assistant Secretary for Education*

National Center for Education Statistics
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The Condition of Education, 1976 edition, was prepared in the Planning Office of the National Center for Education Statistics, under the supervision of Iris Garfield, Planning Officer.

The development and preparation of the report was the responsibility of Mary A. Golladay. Assistance in preparation of specific entries and on many aspects of report production was provided by Valena A. White, Susan T. Hill, Ronald N. Jessee, and Carol I. Senden.

Guidance and direction in assembling materials describing the program and plans of the Center were given by David B. Orr and George H. Brown, with assistance provided by David A. Hilliard.

Coordination of all steps in the process of copy preparation and publication was the responsibility of Helen A. Tashjian. Ronald F. Waring and Bruce Berman provided editorial assistance. Mamie M. Brown assisted in a final review of camera-ready copy and, along with D. Lorraine Williams and Daisy A. Matthews, performed many last-minute tasks in preparation for printing.

Typing of the manuscript was done by Claire M. Rowland and Margaret Wilson.

ACKNOWLEDGMENTS

The assistance of many individuals in the preparation of this report is gratefully acknowledged. Assistance in assembling materials for specific chapters of the statistical protion of the report was provided by Angus Maddison, Organization for Economic Cooperation and Development, Paris, France, who supplied the materials for the chapter on international comparisons of education statistics; A. Harvey Belitsky who assembled considerable data on the relationships between education and work; and Frank Farner and James S. Rose, who assembled materials documenting changes in elementary and secondary school finance.

Numerous individuals within NCES provided data and reviewed drafts of the manuscript; of particular help were comprehensive reviews by Marjorie O. Chandler and W. Vance Grant. Representatives from other governmental agencies within the Department of Health, Education, and Welfare also reviewed the draft; these agencies were the Office of the Assistant Secretary for Planning and Evaluation; the Office of the Assistant Secretary for Education; the Office of Planning and Budget Evaluation, Office of Education; and the National Institute of Education.

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I

Education: An Overview

Chapter 1

Students and Schools

Education in America is integrally linked to the demographic, political, and social events which compose our history. Organized schools in the United States preceded the establishment of many of the original thirteen colonies and from the first these schools have contributed to society. The skills and understandings they passed on to students were instrumental in perpetuating the democratic style of government chosen by early settlers and later codified in the Constitution. In recognition of the Bicentennial, the 1976 edition of *Condition of Education* begins with a capsule statistical summary of education in the United States.

A Historical Summary Of American Education

The early settlers clearly perceived schools as instruments of social control, if not necessarily social change. The Old Deluder Satan Act of 1647, the first law providing for public education, was passed to keep youngsters out of mischief as well as to educate them. Eleven years earlier, in 1636, the founding of Harvard College had given the colonies an institution offering academic and professional courses of study. While these early provisions for schooling were made on the basis of local initiatives, schools at all levels were well-established by the time the colonists had secured independence from England. Not all citizens were served equally, yet the expansion of educational opportunities to groups with special needs, such as the handicapped and the deaf, also occurred early in the history of the Republic.

States held the prerogatives in the provision of schooling. Federal efforts in education took the form of supporting development of higher education institutions or providing funds to States for special educational programs. Federal actions often responded to political or social conditions. Wars and scientific achievement have both prompted important legislation affecting education. The most notable recent example perhaps was the GI Bill of 1944, which provided funds for schooling for veterans. Other significant legislation included the Smith-Hughes Act of 1917, which gave aid to States for vocational education; and the National Defense Education Act of 1958, which provided a variety of resources for education; and the Elementary and Secondary Education Act of 1965, which made possible educational assistance to special groups.

The courts have proved to be a major source of directed change in educational practices. The famous *Brown vs. Board of Education* decision of 1954, in which the U. S. Supreme Court declared racially segregated schooling unconstitutional, has had momentous impact on the country's educational systems. More recent decisions have altered the patterns of school financing in many States and have directed attention to the educational needs of special groups, such as the handicapped or mentally retarded.

To give meaning to the chronology of dates and events that outline the past, the expansion of education must be reviewed in relation to the size of the population, which, by January of 1974, numbered more than 211 million (chart 1.2). The earliest available authoritative figures, compiled in 1790, estimated the population of the newly independent republic at just under 4 million. It was not until 1915 that the total reached 100 million. The population increase since 1915 has been dramatic. In the 24 years between 1950 and 1974, population climbed from almost 152 million to almost 212 million, an increase of 71.7 percent.

In addition to population growth, the past 100 years have seen substantial growth in public school attendance. Not only are a far greater proportion of young people now enrolled in school, but they are spending much more of their time in school as well. Data for 1869-70 showed 57 percent of the population 5 to 17 years old and enrolled in public elementary and secondary school, and only 59.3 percent of those enrolled attending daily (chart 1.3). Thus, fewer than 35 percent of the appropriate age group were actually attending public elementary and secondary schools on a regular basis. Increases in both percent of population enrolled and attendance of those enrolled were steady through 1939-40, when 84.4 percent of the population enrolled and average attendance figures stood at 86.7 percent of students enrolled. Despite a drop in participation in the 1950's, by 1971-72 both enrollment and attendance were within 1 percent of alltime highs for public schools, with 88.1 percent enrolled and 90.2 percent of enrollees attending daily. The figures are especially noteworthy, since the school term itself has been getting longer. Average term length has grown from 132.2 days in 1869-70 to 179.3 days in 1971-72.

The figures on public school participation attest to the importance society attaches to education. Whether the credit goes to a lofty belief in the values of education or a less lofty interest in the custodial role of schooling, a moment's reflection suggests that such expansion implies a major commitment both in time and in resources devoted to educational activities. In 1870, there were 201,000 public elementary and secondary school teachers (chart 1.4); by 1971, the number had grown to 2,187,000–a more than ten-fold increase. Even more dramatic has been higher education's explosive increase in instructional staff, from 6,000 in 1869-70 to 907,000 in 1971-72. Much of this growth has occurred within the last 10 years. As recently as 1959-60, a mere 381,000 individuals constituted the instructional staff in higher education institutions.

Such growth in educational institutions has had a predictable impact on the population level of educational attainment: the percent of the total adult population attaining 4 years of high school or higher has increased from 13.5 percent in 1910 to 61.2 percent in 1974 (chart 1.5). Included in this 61.2 percent with a high school education are 13.3 percent of the total adult population who have 16 or more years of formal schooling. The increases in educational attainment have been not only at higher levels of education. The proportion of the population with less than 5 years of elementary school has declined from 23.8 percent in 1910 to 4.4 percent in March, 1974.

Education expenditures have risen spectacularly, climbing from $3 billion in 1929-30 to $109 billion in 1974-75 (chart 1.6). As a percent of the Gross National Product (GNP) these figures represent the expansion of formal education to the point where it is a major consumer of goods and services. Education accounted for 3 percent of GNP in 1929. By 1969-70, the $70 billion spent on education accounted for 7.5 percent of GNP. Since 1969, education's share of GNP has not exceeded 8.0 percent, though the dollar sums have increased steadily.

Chart 1.1

SCHOOLING IN THE UNITED STATES: A HISTORICAL PERSPECTIVE

Jamestown, Virginia, is founded, 1607		
	1610	
Pilgrims land at Plymouth, 1620 Massachusetts Bay is founded, 1628	1620	
	1630	Public Latin school is founded, 1635 First college in colonial America, Harvard, is founded, 1635 First school supported by direct taxation is established, 1639
	1640	First locally elected school board is installed, 1642 The Old Deluder Satan Act, first law providing for public education, is passed, 1647
	1650	
	1700	
	1750	
French and Indian War is fought, 1755-63		Benjamin Franklin opens his academy, 1751
	1760	
Stamp Act passed, 1765 Boston Tea Party, 1773 First Continental Congress is organized, 1774 War of American Independence is fought, 1775-83 American Declaration of Independence, 1776	1770	Noah Webster publishes *The American Spelling Book*, 1778
	1780	
Northwest Ordinance is adopted, 1787 U.S. Constitution is signed by 9 States, 1788		
	1790	
Eli Whitney invents the cotton gin, 1793 First spinning mill begins operation in U.S., 1796		First State university opens, 1795
	1800	
Purchase of Louisiana from France, 1803 Fulton operates first steamboat, 1807		
	1810	First formal education for the handicapped (deaf), 1817
Purchase of Florida from Spain, 1819 Missouri Compromise over slavery, 1820	1820	First public high school, English High School, is founded in Boston, 1821
Monroe Doctrine is set forth, 1823 Erie Canal is completed, 1825		Massachusetts passes law requring establishment of public high schools in larger communities, 1827
Cyrus McCormick invents reaper, 1831 Samuel F. B. Morse develops electric telegraph, 1832	1830	Oberlin College is first to admit women to formerly all-male institution, 1833 Pennsylvania Public School law establishes free education, 1834 First *McGuffey Reader* published, 1836 Horace Mann becomes chairman of Massachusetts Board of Education, 1837 Henry Barnard is named first Commissioner of Education in Connecticut, 1838 First teachers college is established, 1839
	1840	
Annexation of Texas, 1845 Gold is discovered in California, 1848		
	1850	Massachusetts enacts first compulsory attendance law, 1852
	1860	
Civil War is fought, 1861-1865 Homestead Act passed, 1862, encourages settlement of frontier lands Emancipation Proclamation, 1863 Atlantic Cable is laid, 1866 Typewriter is invented, 1867 Transcontinental Railroad is completed, 1869		Morrill Act-Land Grant College Act, donates lands to encourage establishment of land-grant institutions, [illegible] Organic Act-Department of Education is establish[illegible] Office of Education is placed within the Dep[illegible] Interior, 1868
	1870	*Stuart v. School District of Kal*[illegible] authorities to levy taxes [illegible]
Alexander G. Bell invents telephone, 1873 Joseph F. Glidden invents barbed wire, 1874 Thomas A. Edison invents electric lamp, 1879		
	1880	
Edison perfects motion picture, 1889		
	1890	S[illegible]
	[illegible]	[illegible]

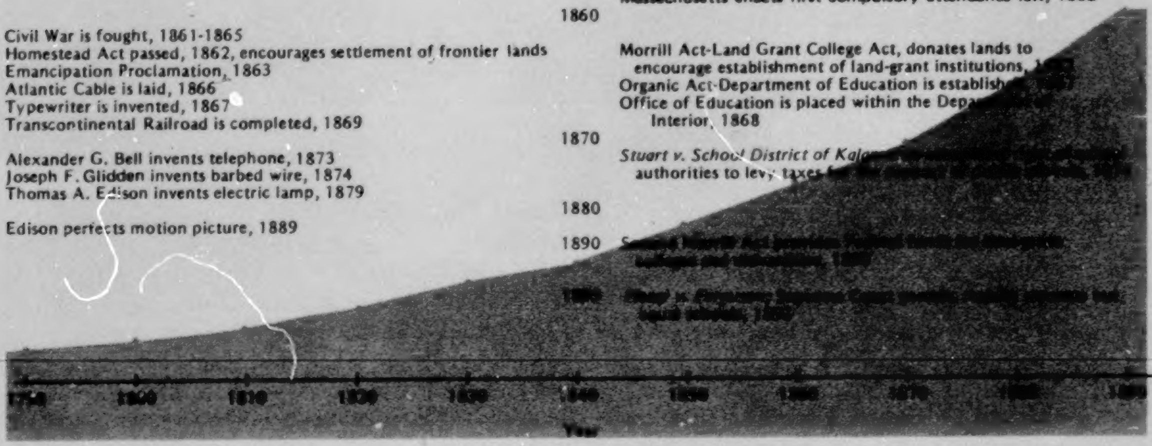
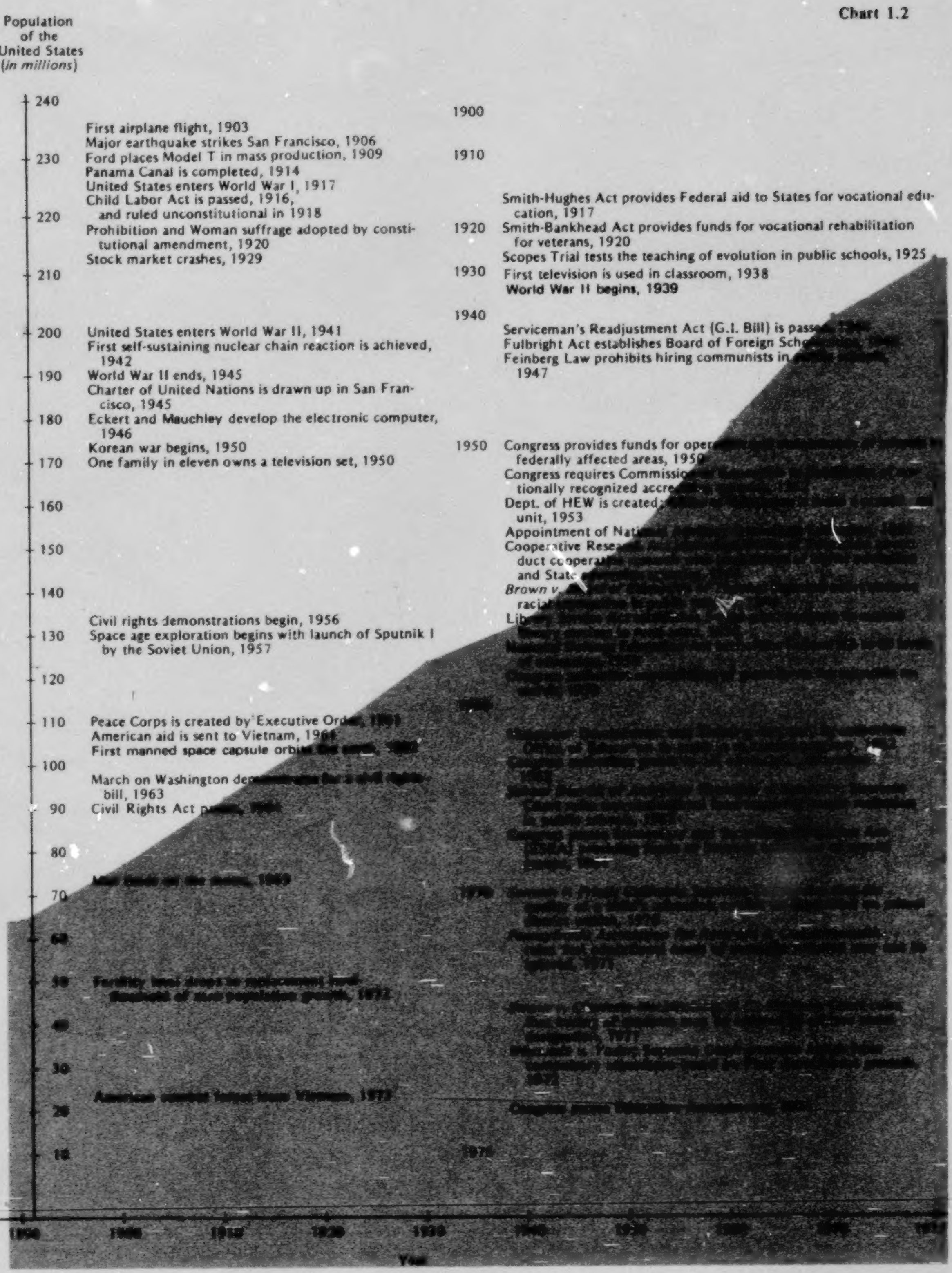


Chart 1.2



First airplane flight, 1903
Major earthquake strikes San Francisco, 1906
Ford places Model T in mass production, 1909
Panama Canal is completed, 1914
United States enters World War I, 1917
Child Labor Act is passed, 1916, and ruled unconstitutional in 1918
Prohibition and Woman suffrage adopted by constitutional amendment, 1920
Stock market crashes, 1929
United States enters World War II, 1941
First self-sustaining nuclear chain reaction is achieved, 1942
World War II ends, 1945
Charter of United Nations is drawn up in San Francisco, 1945
Eckert and Mauchley develop the electronic computer, 1946
Korean war begins, 1950
One family in eleven owns a television set, 1950
Civil rights demonstrations begin, 1956
Space age exploration begins with launch of Sputnik I by the Soviet Union, 1957
Peace Corps is created by Executive Ord[illegible]
American aid is sent to Vietnam, 196[illegible]
First manned space capsule orbi[illegible]
March on Washington de[illegible] bill, 1963
Civil Rights Act p[illegible]
Man lands on the moon, 1969
[illegible]
American combat forces leave Vietnam, 1973

1900

1910

Smith-Hughes Act provides Federal aid to States for vocational education, 1917

1920

Smith-Bankhead Act provides funds for vocational rehabilitation for veterans, 1920
Scopes Trial tests the teaching of evolution in public schools, 1925

1930

First television is used in classroom, 1938
World War II begins, 1939

1940

Serviceman's Readjustment Act (G.I. Bill) is pass[illegible]
Fulbright Act establishes Board of Foreign Sch[illegible]
Feinberg Law prohibits hiring communists in [illegible] 1947

1950

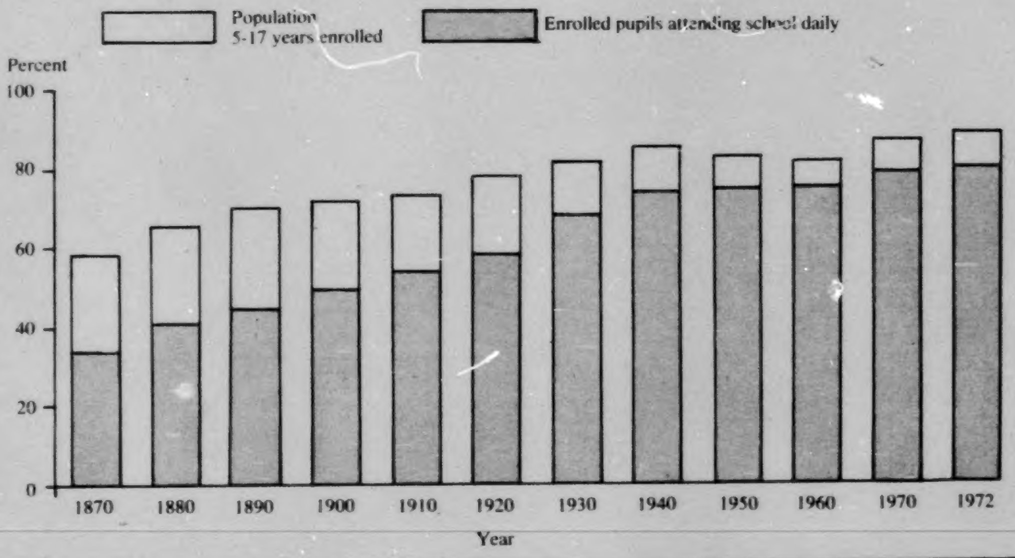
Congress provides funds for oper[illegible] federally affected areas, 1950
Congress requires Commissio[illegible] tionally recognized accre[illegible]
Dept. of HEW is created[illegible] unit, 1953
Appointment of Nat[illegible]
Cooperative Resea[illegible] duct cooperat[illegible] and State [illegible]
Brown v. [illegible] racia[illegible]
Lib[illegible]
[illegible]

The average attendance in public schools of persons 5 to 17 years old has risen dramatically.

See Table 1.3

Chart 1.3

Participation in Public Schools

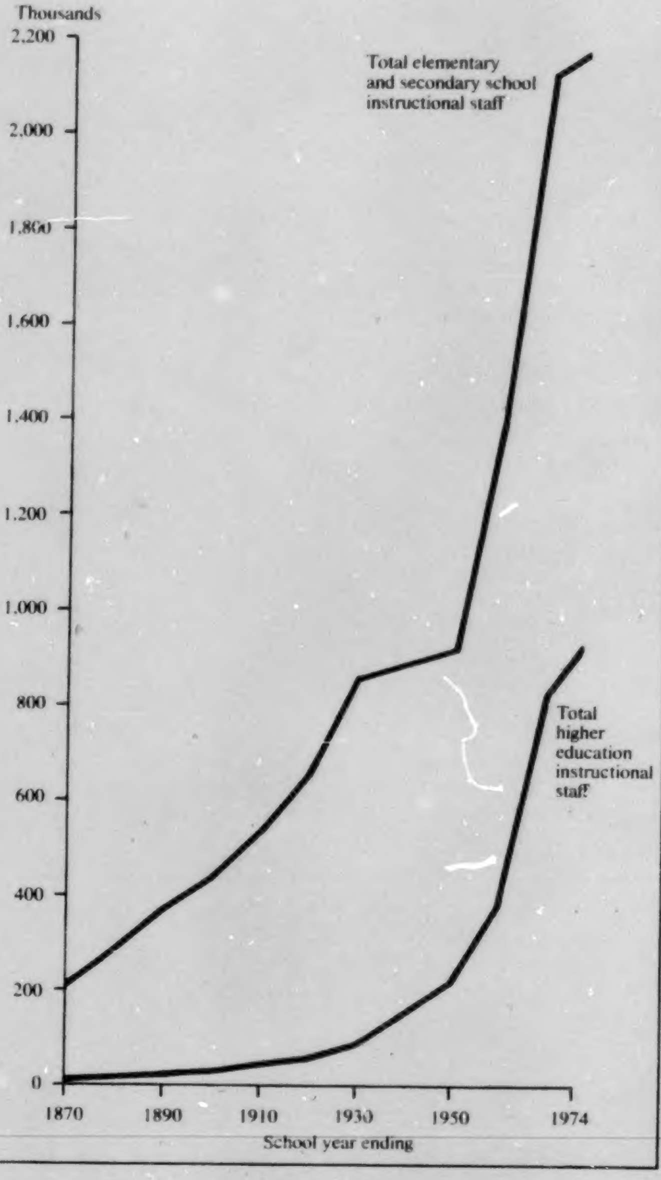


There were more than 10 times as many elementary and secondary school teachers and higher education staff in 1974 as in 1870.

See Table 1.4

Chart 1.4

Faculty in Educational Institutions

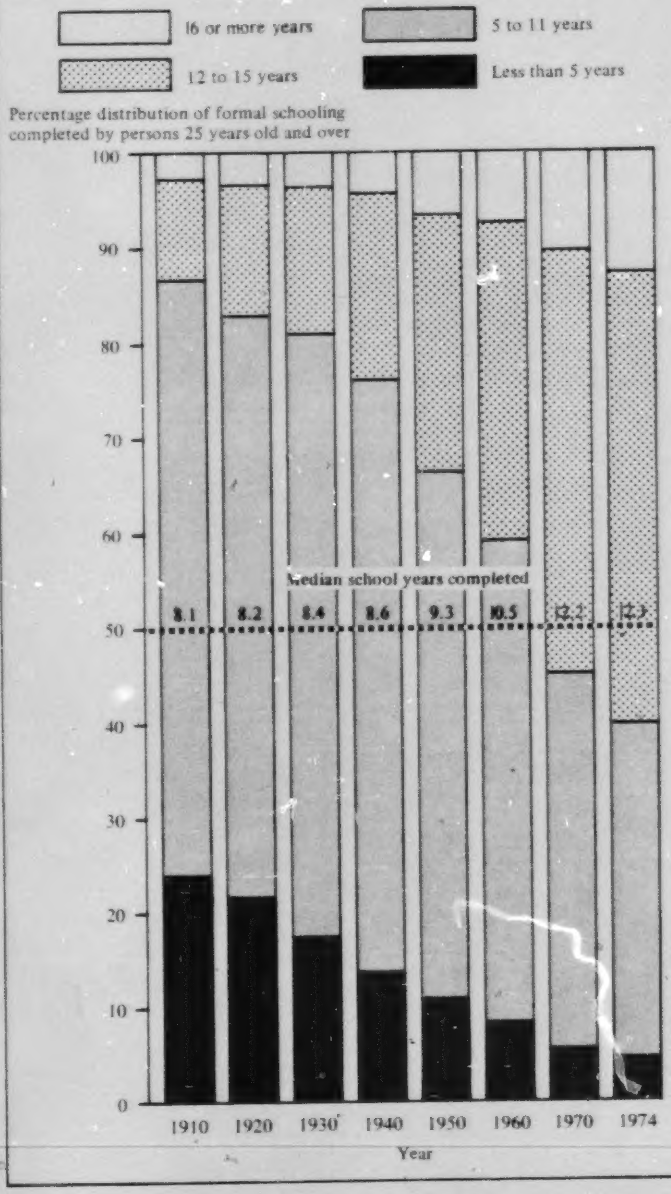


The expansion of the educational system is reflected in increased average educational attainment of the adult population.

See Table 1.5

Chart 1.5

Changing Educational Attainment

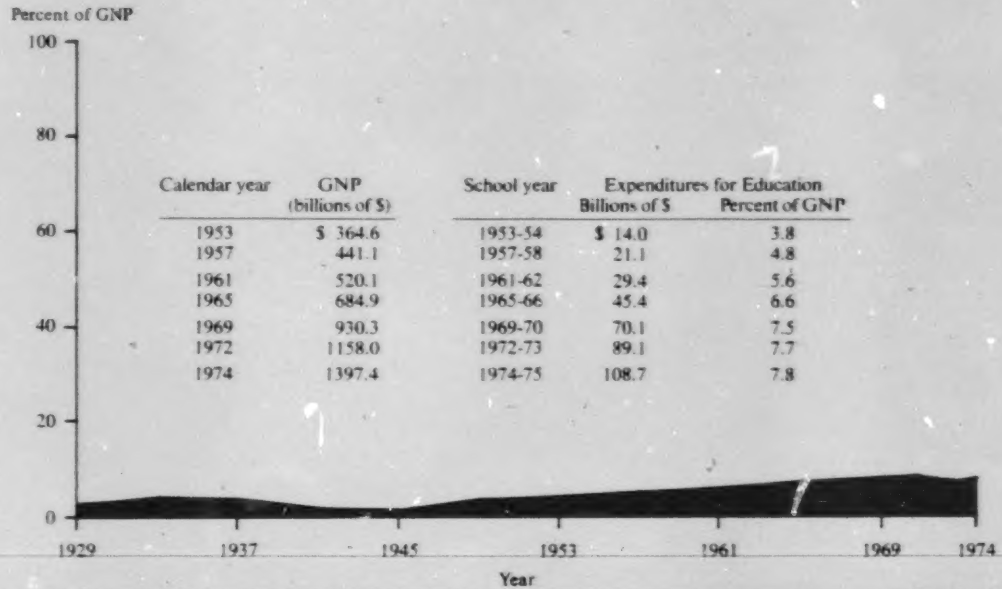


Educational expenditures have ranged from 3 to 8 percent of Gross National Product in the years since 1929.

See Table 1.6

Chart 1.6

Expenditures for Education as a Percent of GNP



Calendar year	GNP (billions of $)	School year	Expenditures for Education	
			Billions of $	Percent of GNP
1953	$ 364.6	1953-54	$ 14.0	3.8
1957	441.1	1957-58	21.1	4.8
1961	520.1	1961-62	29.4	5.6
1965	684.9	1965-66	45.4	6.6
1969	930.3	1969-70	70.1	7.5
1972	1158.0	1972-73	89.1	7.7
1974	1397.4	1974-75	108.7	7.8

The Students

The historical picture of American education is one of expansion in numbers of students, instructors, and schools. But what of the future? It is evident that this pattern will not continue. The demographic and economic conditions within which this expansion took place have changed. This chapter examines some of the constraints on the basic inputs (students and schools) of formal educational systems and on the costs.

The limit on numbers of students is provided, of course, by the size of the population. It is, therefore, of special importance to education that the age distribution of the population will change markedly between 1974 and 2000. In 1974, the largest single concentration is in the 15-to-19-year-olds (chart 1.7). Because of a declining birth rate, this group will continue to dominate the population in the year 2000. The traditional school-age population will decline in numbers; the adult population, in contrast, will be substantially larger than it is now.

Some implications of these population changes for education as an industry are immediate and obvious. The education enterprise as traditionally conceived is now a no-growth industry, except for particular regions where commerce, government, or some external demographic factors are responsible for temporary and, perhaps, major increases in school-age population.

Looking more specifically at the population groups from which elementary, secondary, and higher education students have been drawn, it can be seen that, nationwide, only at the elementary level has the declining birth rate already been responsible for a substantial decrease in the number of students. In 1969, there were 36,837,000 persons aged 5 to 13 years; in 1975, this number had dropped to 33,199,000 (chart 1.8). The secondary school population (ages 14 to 17 years) has just crested in terms of absolute numbers, estimated at 16,822,000 in 1974. By 1985, this age group is expected to contain only 14,252,000 persons.

The number of 18-to-21-year-olds will increase until 1979, reaching 16,910,000 before it begins to decline. The effect of the declining population on traditional and nontraditional higher education is less certain than it is for elementary and secondary education, where participation is already at very high levels. An examination of participation in postsecondary education later in this report will show differential participation rates for population subgroups. Whether these rates continue or change markedly will depend upon many factors.

The educational system in the United States still displays the historic division into basic elementary, secondary, and postsecondary education (chart 1.9). While the grouping of grades 1 through 12 varies with local administrative units, the provision of 12 years of schooling, with a high school diploma marking their successful completion, is a uniform characteristic of the educational system. Considerably more variety exists in the offerings of postsecondary education, including vocational and technical courses and specialized academic courses.

The areas of continuing expansion in the educational system are, not surprisingly, found at the two extremes of the organized system, in activities serving preschool children and adults. Prekindergarten enrollment has grown from 5.2 percent of 3- and 4-year-olds in 1964 to 21.7 percent in 1975 (chart 1.10). The growth in formal educational activities for the young provides an example of how the educational system responds to social change. Continuing belief in education, attempts to improve the readiness of children for formal schooling, changing domestic patterns, and the availability of professional services for early childhood education all contribute to the trend.

The estimated enrollment in elementary and secondary schools (both public and private) shows the effects of changing population size on the numbers of students attending schools. In 1970, there were 51,309,000 students in public schools in prekindergarten through grade 12 (chart 1.11); the projected decline of over 6 million in the next 13 years has implications for resources required to meet educational needs, whether they be buildings or personnel. Some of these implications are examined later, in chapters 4 and 7.

The declining elementary population is not distributed uniformly among States (chart 1.11). Public school enrollment in the United States increased from 39,471,000 in fall 1962 to 45,903,000 in fall 1970 and then declined to 44,700,000 in fall 1975. In a few states, Idaho and Florida, for example, there were steady increases in numbers of public school students during the period from fall 1962 to fall 1974, with slight declines noted in Fall 1975. Many other States have experienced fluctuations in enrollments.

Participation rates for elementary and secondary schools are high, so that enrollment changes between 1960 and 1975 can be attributed primarily to population trends. In contrast, the dramatic increase in enrollment in higher education has been due also to increasing rates of involvement, that is, more of the relevant age group participates in higher education (chart 1.13). Most of this growth has been in public institutions, with the most rapid growth in public 2-year institutions, which in 1960, enrolled 393,000 students for degree credit (chart 1.12). By 1974, public institutions enrolled 2,104,000 students for degree credit, a five-fold increase in 14 years. In contrast, from 1960 to 1974 enrollment in private 4-year institutions changed from 750,000 to 2,253,000, about a three-fold increase.

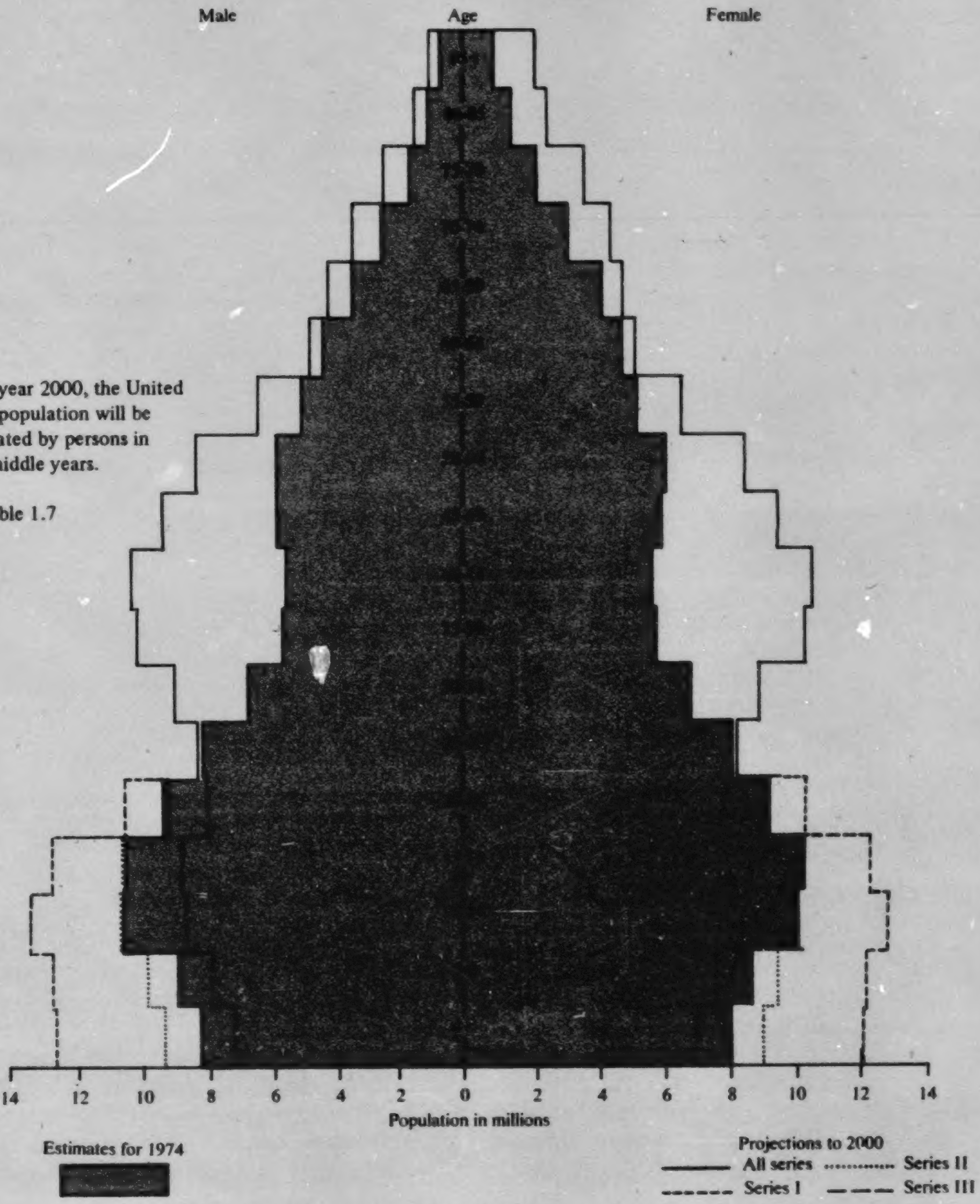
Enrollment in higher education as a percent of the population aged 18 to 24 increased steadily from 1950 to 1970 (from 14.2 percent to 32.1 percent) (chart 1.13). Since 1970, however, the proportion has fluctuated, showing minor decreases and increases, with the latest figures showing 31.8 percent of the population aged 18 to 24 enrolled in 1974.

In contrast, educational participation of the adult population has shown steady increases since 1957. In 1957, 7.8 percent of the population aged 17 and older were engaged in adult education (chart 1.14); by 1975, an estimated 13.3 percent were participating. The actual numbers of participants more than doubled during this time, increasing from 8.2 million to 18 million.

An examination of participation in adult education by age and race shows increases in almost each subgroup between the years 1969 and 1972 (chart 1.15). For all racial groups, participation measured as a percent of the population is greatest among adults 17 to 34 years old. Whites and those of other races have higher participation rates than do Blacks, with participation in 1972 among 17- to 34-year-olds of 10.6 percent for Whites, 10.3 for Blacks, and 14.8 percent for other races. The adult population, with its recent increase in educational participation, constitutes an expanding pool of potential students. The combination of an expanding adult population and the growing view of education as a consumer commodity should contribute to further growth.

Chart 1.7

Age Distribution of the Population



In the year 2000, the United States population will be dominated by persons in their middle years.

See Table 1.7

The traditional school age populations will continue to decline in size until after 1980, though the young adult population will grow during those years.

See Table 1.8

Chart 1.8

Population for School-Age Groups

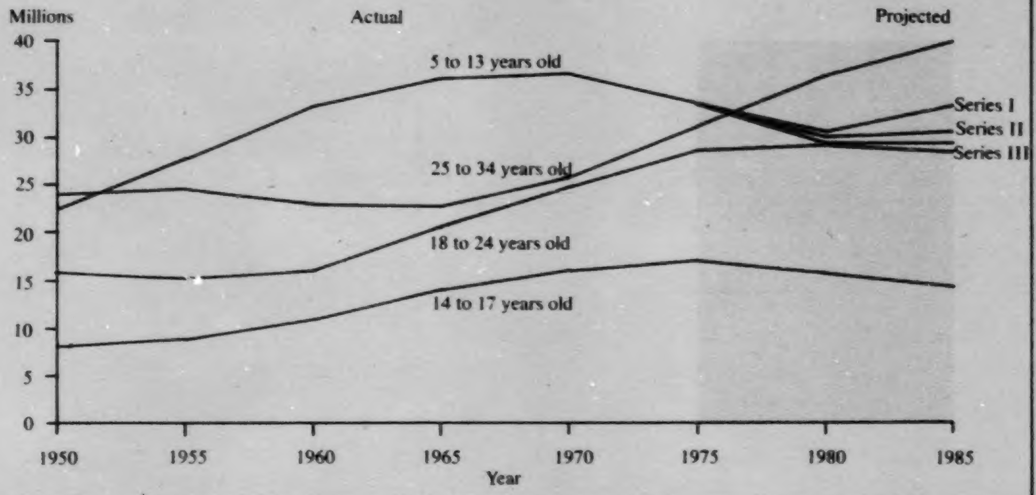
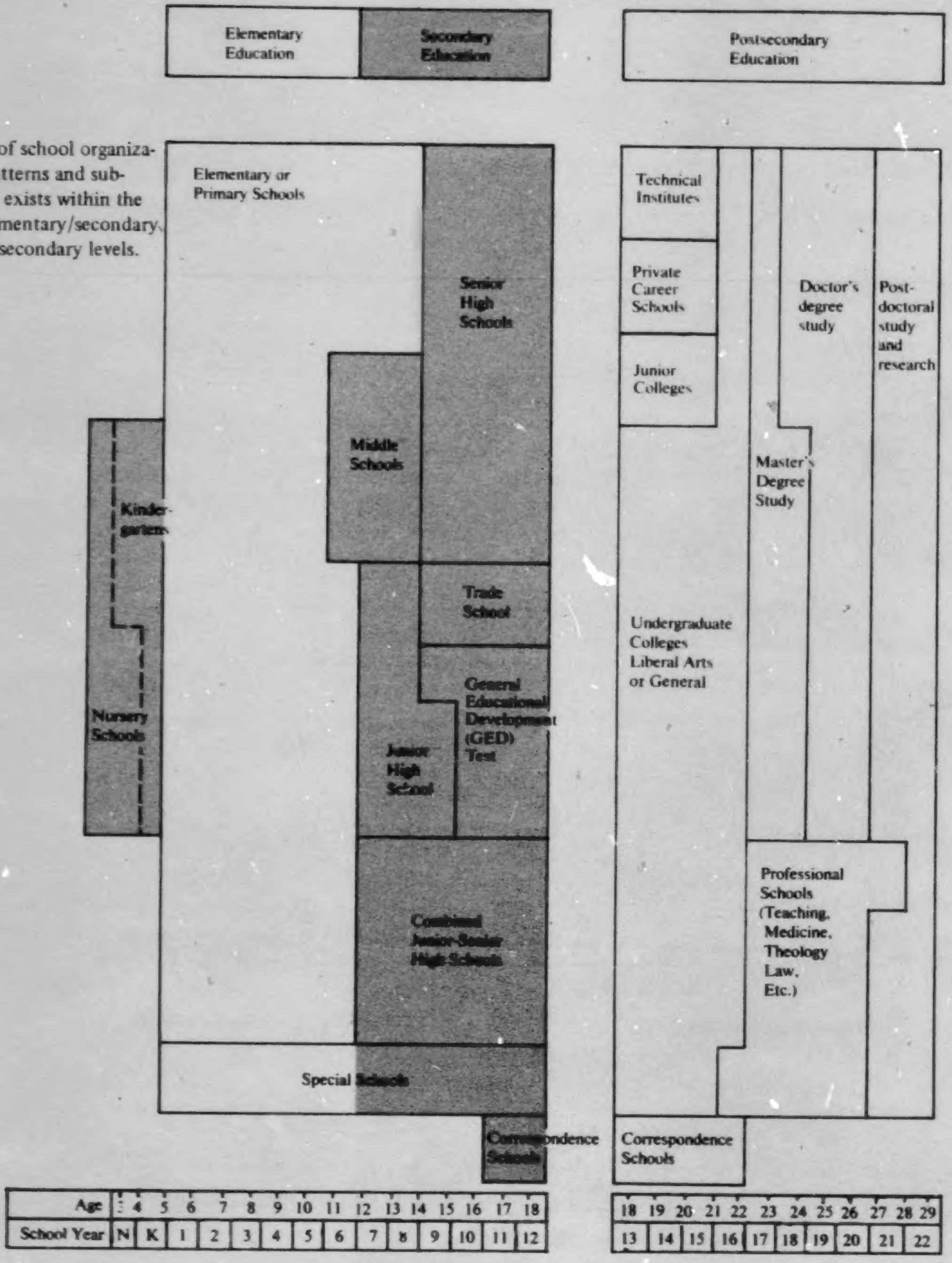


Chart 1.9

The Structure of Education

A range of school organizational patterns and subdivisions exists within the basic elementary/secondary, and postsecondary levels.

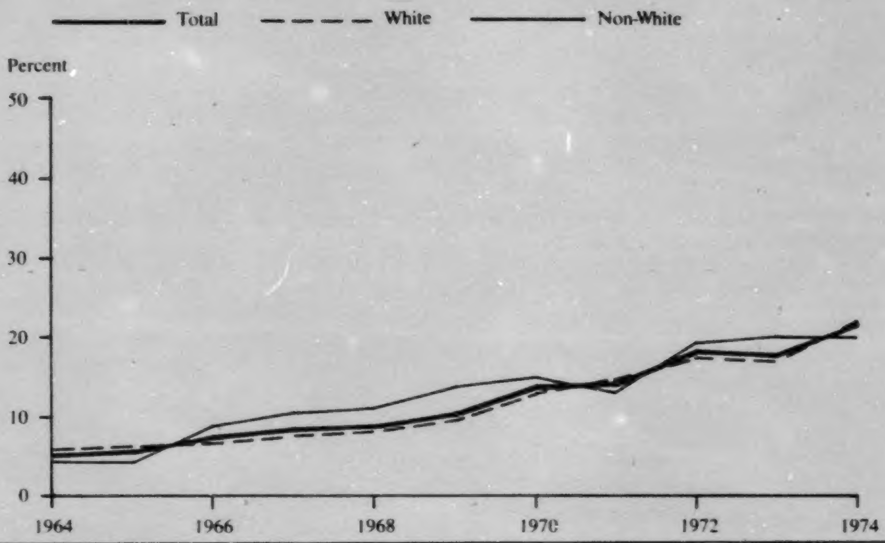


Enrollment in prekindergarten programs has increased steadily since 1964, and now serves 21.7 percent of the population group.

See Table 1.10

Chart 1.10

Prekindergarten Enrollment



Many States have already experienced a decline in enrollments in public schools.

Chart 1.11

Number of Public School Pupils, by State

State or other area	Fall, 1962	Fall, 1964	Fall, 1966	Fall, 1968	Fall, 1970	Fall, 1972	Fall, 1974	Fall, 1975[1]
Total United States	**38,837**	**41,416**	**43,055**	**44,962**	**45,903**	**45,753**	**45,056**	**44,700**
Alabama	812	[illegible]21	873	832	805	733	764	757
Alaska	50	56	62	72	80	85	87	86
Arizona	353	366	383	411	440	485	487	483
Arkansas	436	448	451	453	463	461	455	451
California	3,755	4,140	358	4,582	4,633	4,501	4,428	4,394
Colorado	438	476	499	524	550	574	568	56[illegible]
Connecticut	520	560	597	632	662	665	660	655
Deleware	92	105	113	125	133	134	131	129
District of Columbia	133	141	147	149	146	140	132	130
Florida	1,094	1,184	1,260	1,356	1,428	1,514	1,557	1,544
Georgia	991	1,042	1,074	1,103	1,099	1,090	1,082	1,072
Hawaii	152	158	166	172	181	182	177	175
Idaho	167	173	175	179	182	185	188	186
Illinois	1,890	2,043	2,159	2,274	2,357	2,349	2,296	2,278
Indiana	1,029	1,100	1,155	1,205	1,232	1,221	1,187	1,177
Iowa	598	620	636	658	660	646	618	616
Kansas	502	506	516	522	512	475	450	446
Kentucky	647	663	675	699	717	715	701	695
Louisiana	760	786	821	865	842	846	841	853
Maine	213	218	222	232	245	250	251	248
Maryland	668	736	741	859	916	921	894	887
Massachusetts	943	993	1,083	1,113	1,168	1,203	1,200	1,200
Michigan	1,792	1,919	2,015	2,124	2,181	2,198	2,138	2,121
Minnesota	733	788	835	895	921	910	890	884
Mississippi	563	579	581	582	534	526	514	509
Missouri	858	948	964	1,056	1,040	1,030	1,002	994
Montana	157	165	168	173	177	180	172	171
Nebraska	301	317	319	329	329	329	319	316
Nevada	80	100	108	118	128	132	137	136
New Hampshire	116	125	134	146	159	168	172	171
New Jersey	1,159	1,255	1,326	1,422	1,482	1,510	1,470	1,458
New Mexico	239	260	271	273	281	285	282	280
New York	2,943	3,130	3,249	3,411	3,477	3,524	3,436	3,411
North Carolina	1,140	1,179	1,184	1,195	1,192	1,161	1,178	1,169
North Dakota	142	148	148	149	147	142	133	132
Ohio	2,082	2,230	2,320	2,384	2,426	2,423	2,330	2,314
Oklahoma	563	600	598	604	627	607	596	591
Oregon	413	441	474	490	480	472	477	473
Pennsylvania	2,059	2,212	2,211	2,310	2,358	2,361	2,278	2,261
Rhode Island	143	151	160	173	188	190	179	177
South Carolina	611	633	642	649	638	624	627	622
South Dakota	160	164	168	167	166	162	154	153
Tennessee	838	864	874	884	900	892	873	865
Texas	2,291	2,464	2,563	2,704	2,840	2,738	2,785	2,762
Utah	258	283	292	301	304	306	306	304
Vermont	78	82	88	100	103	107	105	104
Virginia	906	969	1,003	1,056	1,079	1,069	1,073	1,084
Washington	685	719	753	804	818	791	786	779
West Virginia	436	436	421	410	400	410	404	401
Wisconsin	767	831	890	954	994	995	974	968
Wyoming	83	88	85	86	87	86	87	85
Outlying areas:	**634**	**662**	**701**	**711**	**734**	**780**	**786**	**783**
American Samoa	6	7	8	8	9	8	10	10
Canal Zone	13	13	13	14	13	13	11	11
Guam	15	16	18	21	25	27	28	28
Puerto Rico	592	618	651	668	687	711	713	710
Virgin Islands	8	9	11	–	–	21	23	24

[1] Estimated.

NOTE.–State and area figures may not add up to total figures because of rounding.

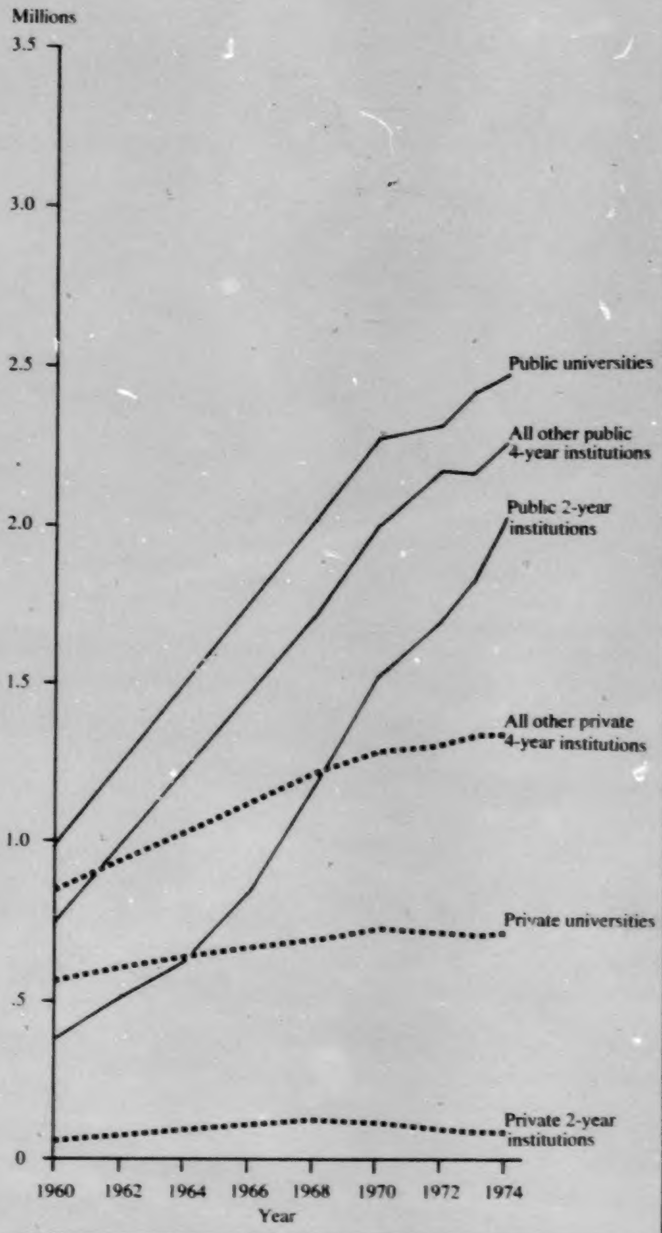
SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Fall Statistics of Public Schools.*

The dramatic growth in enrollments in higher education since 1960 has been concentrated in public institutions.

See Table 1.12

Chart 1.12

Enrollment in Higher Education

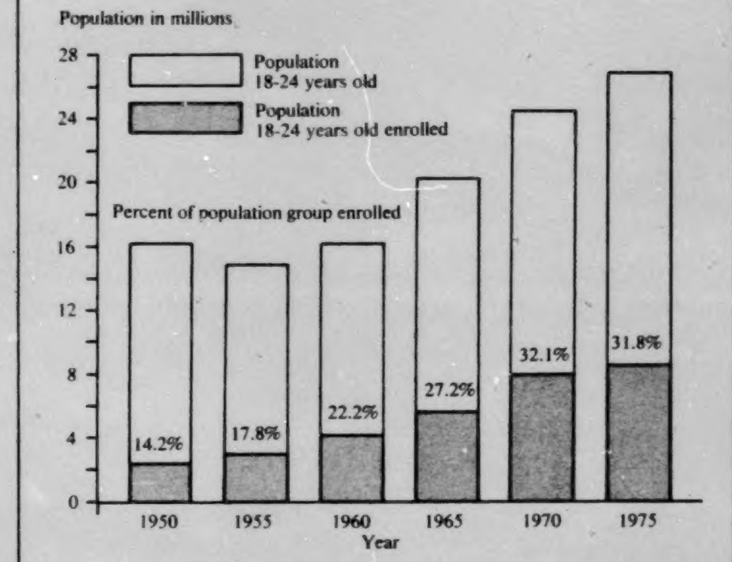


Degree-credit enrollment in higher education as a percent of the population rose from 14.2 percent in 1950 to 27.2 percent in 1965. There have been only minor increases since 1965 with the percent rising to 31.8 in 1975.

See Table 1.13

Chart 1.13

Participation in Higher Education

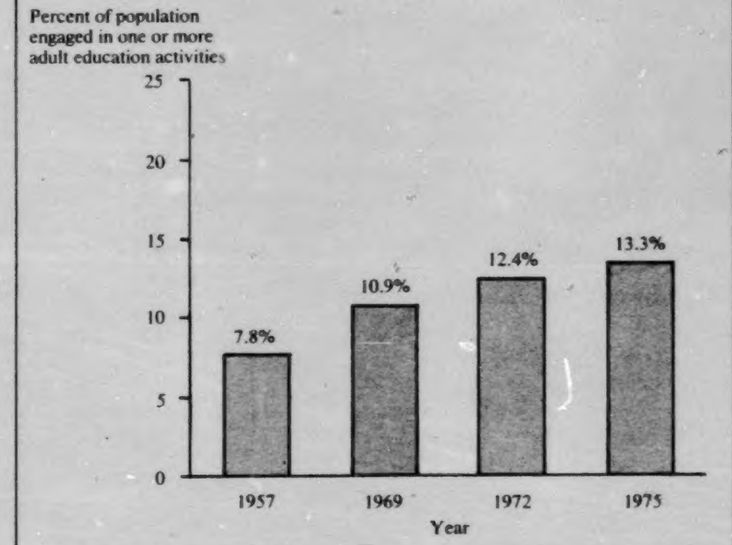


The percent of the population participating in adult education activities has almost doubled since 1957.

See Table 1.14

Chart 1.14

Participation in Adult Education

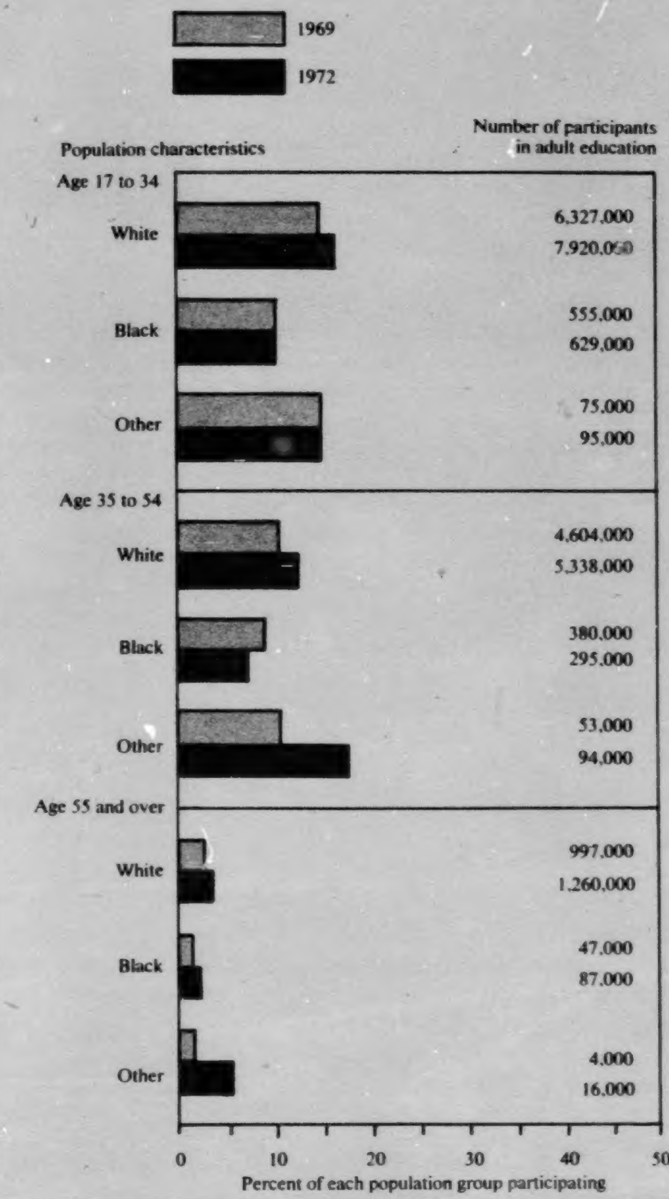


Adults aged 17 to 34 and 35 to 54 are the most active participants in adult education.

See Table 1.15

Chart 1.15

Participation in Adult Education, by Age and Race



The Schools

Level, jurisdictional control, and size are important variables in providing profiles of the schools. The traditional distinction between elementary and secondary education on the one hand and postsecondary education on the other is clearly maintained. Private schools at all levels serve a significant part of the population, although at the postsecondary level their growth has not equalled that of public institutions. Elementary and secondary schools and institutions of higher education are all getting larger; this trend may slow as the declining size of the youth population is felt in enrollments.

The schools and administrative units responsible for providing elementary and secondary educational opportunities have decreased in number in the last 15 years. In 1960, there were 91,853 public elementary schools in the United States (chart 1.16); by 1973, this number had dropped to 64,945. Most of this decline reflected closing of 1-teacher schools which, although so often regarded as a feature of the distant past, occupied a substantial place in American education as recently as 15 years ago. There were 20,213 such schools in this country in 1960; in other words, at least one school in five had only 1 teacher.

The numbers of public secondary schools and of nonpublic elementary and secondary schools have all declined, but less dramatically, from the high numbers reached in the mid-1960's. The number of school districts, because of consolidation of small districts, also continues to decline. In 1960, there were 40,520 school districts; the number had dropped to 16,960 by 1973 (table 1.17).

Declining numbers of school districts and schools mean consolidation of students into larger administrative units. In the 1961-62 school year, 2 percent of the school districts enrolled 37.7 percent of all public school pupils (chart 1.17). Those large districts each had jurisdiction over 12,000 or more students, and 7.4 percent of the students were in small districts (with fewer than 600 students). The smaller districts comprised 59.4 percent of all operating districts. By 1971-72, the grouping of students in districts had changed somewhat, with over 43 percent of students in large districts, which made up 3.6 percent of all districts. Only 3.4 percent of the students were in the 41.2 percent of the districts with small enrollments.

Institutions of higher education are also changing in character, since growth is limited almost exclusively to public institutions (this applies to all categories of schools: universities, other 4-year institutions, and 2-year institutions). Between 1966 and 1974, enrollment in all institutions of higher education increased from 6.4 million to 10.2 million (chart 1.18), but of that enrollment the number attending private institutions changed only from 2.1 million in 1966 to 2.2 in 1974.

The size of institutions of higher education is increasing. In 1968 there were 25 institutions enrolling 30,000 or more students; this number had grown to 37 by 1974. Similarly, the number of small institutions has decreased (table 1.19). In 1968, there were 302 institutions with enrollment under 200; in 1974, there were 279 such institutions. The greatest growth has occurred in institutions enrolling 10,000 to 29,999 students (chart 1.19).

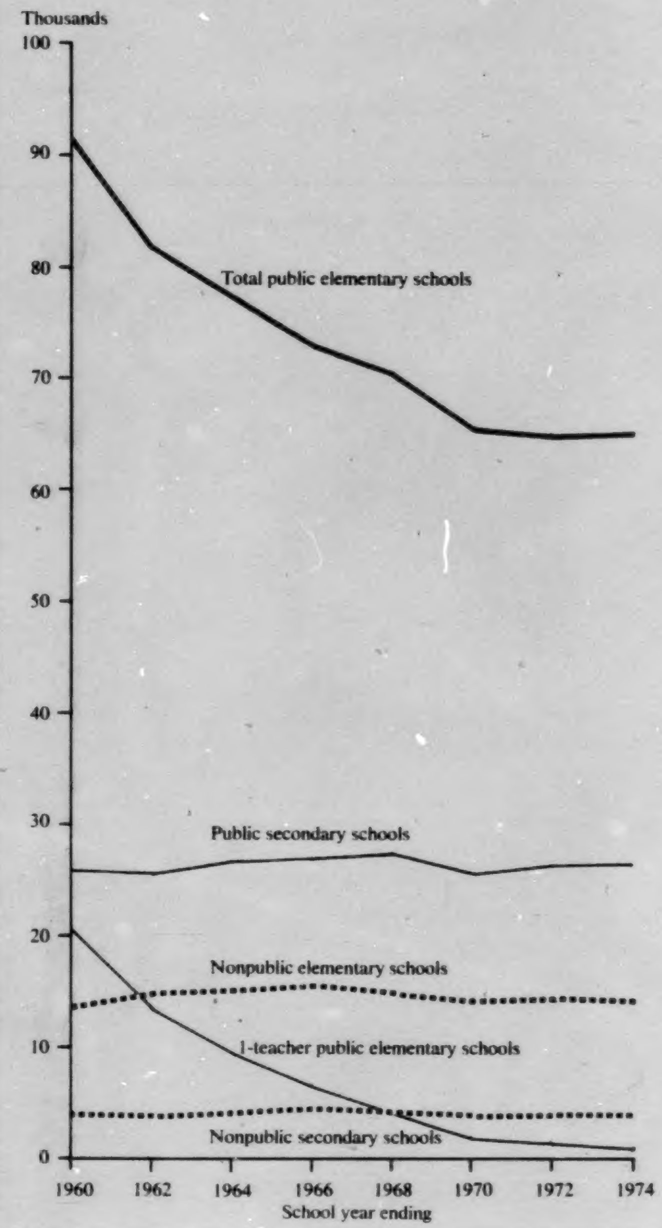
Noncollegiate postsecondary schools exhibit different characteristics from institutions of higher education. The majority of noncollegiate postsecondary schools offering occupational programs are private; of 8,846 institutions in 1973, 7,953 were private (chart 1.20). Only among vocational/technical schools are public and private schools approximately equal in number (579 public and 588 private). The role of these schools in providing postsecondary education opportunities will be explored in greater detail in Chapter 4.

The number of elementary schools has declined steadily since 1960, primarily due to the closing of 1-teacher schools.

See Table 1.16

Chart 1.16

Public and Nonpublic Schools

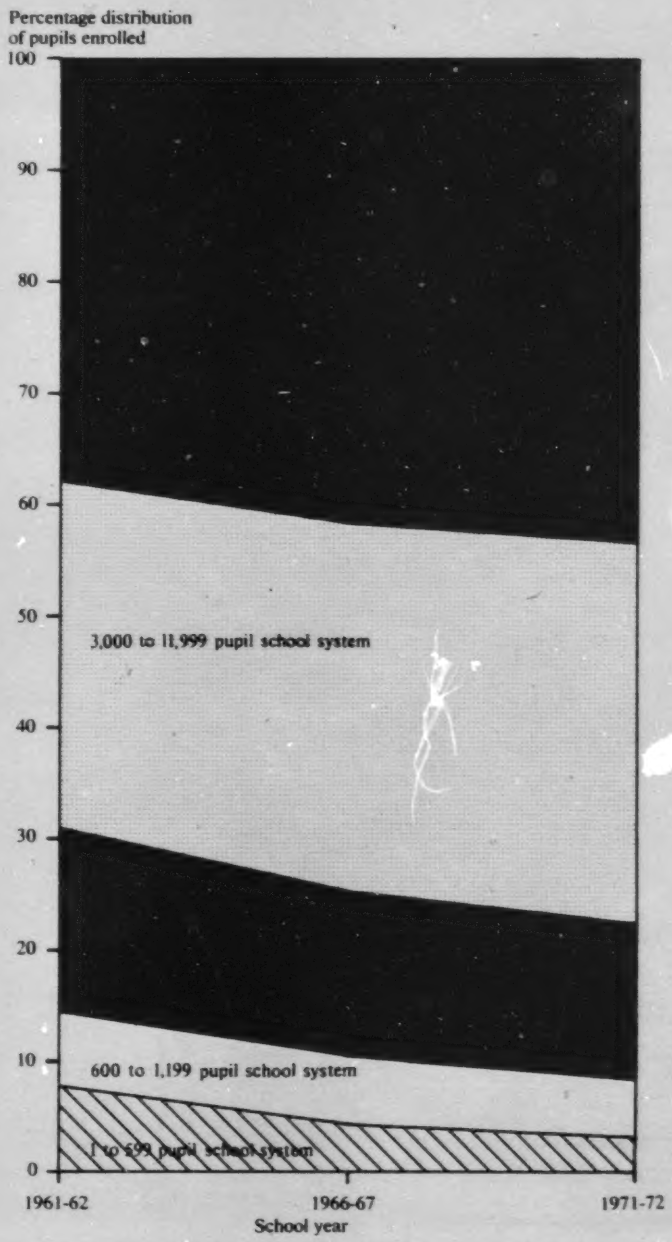


School systems are getting larger, with more than 43 percent of the students now in districts of 12,000 and more pupils.

See Table 1.17

Chart 1.17

Enrollments by School System Size

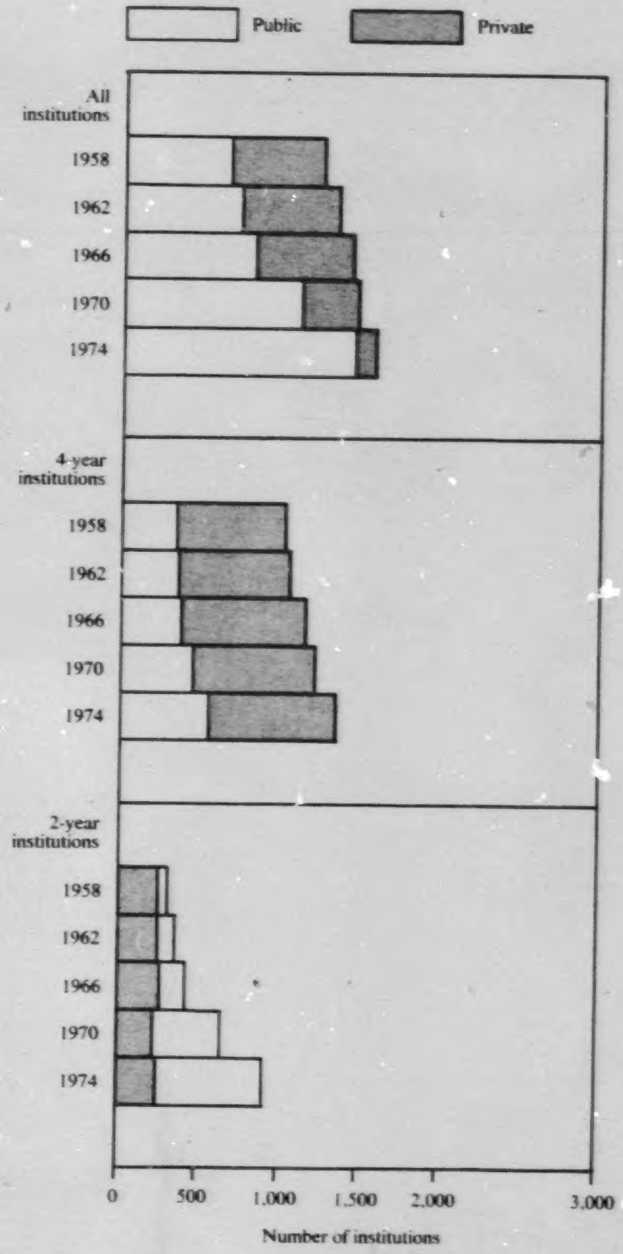


Most of the increase in numbers of institutions of higher education has occurred in the public sector.

See Table 1.18

Chart 1.18

Institutions of Higher Education

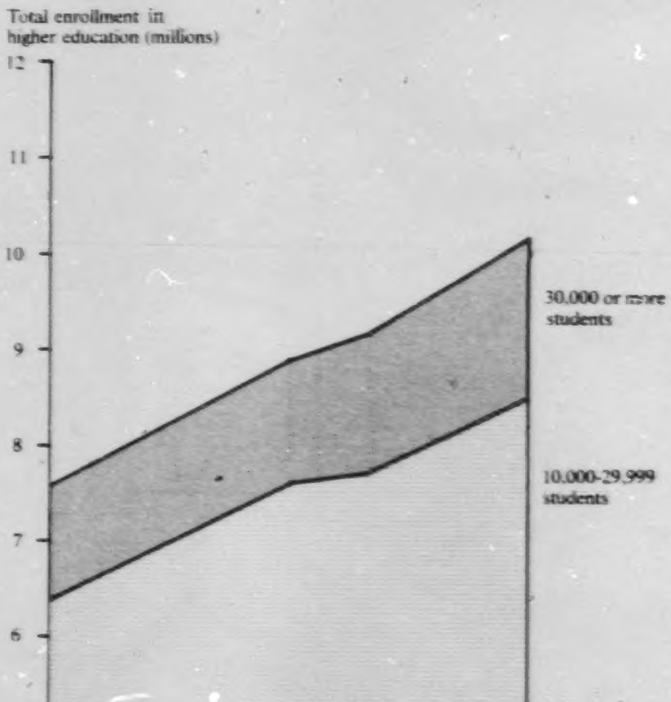


In 1974, more than one-half of the students enrolled in institutions of higher education were attending schools with enrollments of 10,000 or more.

See Table 1.19

Chart 1.19

Size of Institutions of Higher Education

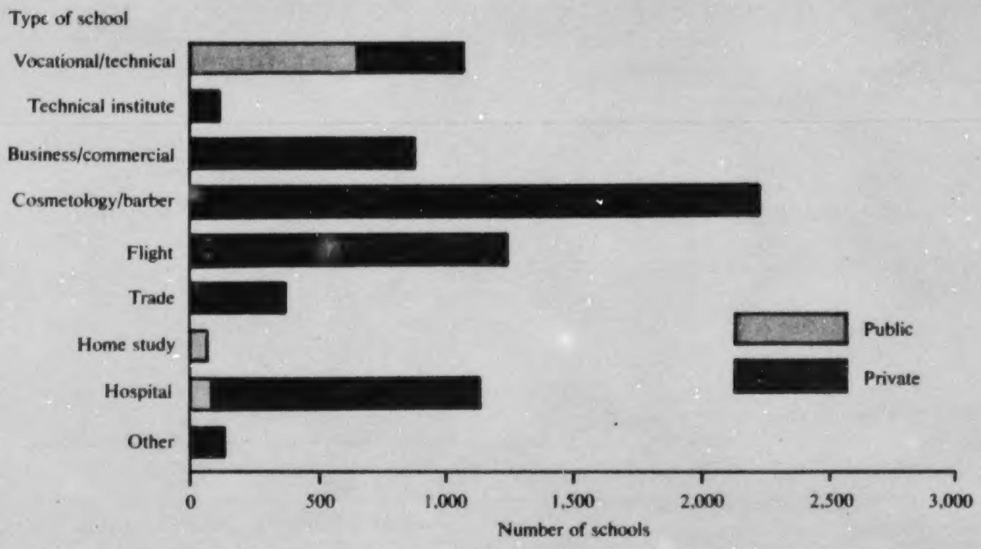


The majority of noncollegiate postsecondary schools offering occupational programs are private.

See Table 1.20

Chart 1.20

Noncollegiate Postsecondary Schools Offering Occupational Programs



The Costs

Expenditures on education have risen sharply in the last 45 years. This fact is almost universally known, but a review of the figures highlights the areas of increase. While some of the increase is attributable to inflation and some to expanding enrollments, other factors are contributing as well.

The proportional sources of funds for educational expenditures have shifted in the last 15 years. The Federal share was 6.9 percent in 1959-60 and 9.8 percent in 1975-76 (chart 1.21). The 1975-76 figure represents a decline for the Federal share from a high of 11.9 percent in 1967-68. The State proportion has increased while local sources have decreased; the State proportion has risen from 29.1 percent in 1959-60 to 34.1 percent in 1975-76, while the local proportion dropped from 39.3 percent to 31.0 percent during the same period.

In examining the actual dollar figures, the tremendous growth in expenditures from all sources is evident. While the *proportion of* expenditures from Federal sources has declined since 1967-68 and 1975-76, the amount increased from $6.8 billion to $11.8 billion between 1967-68 and 1975-76. Similarly, the local share has declined, but actual expenditures from local sources since 1959-60 have more than tripled, from $9.7 billion to $37.2 billion in 1975-76.

Expenditures for elementary and secondary schools have risen from $18.0 billion to $75.1 billion in 16 years (chart 1.22). The Federal share of expenditures has grown during this period, from 3.9 percent to 7.1 percent, peaking at a high of 8.5 percent in 1971-72 and 1973-74. State sources are accounting for a greater share and local sources a lesser share of total expenditures. The support of all other, nongovernmental sources has also declined. The changing components of public elementary and secondary school finance are examined in greater detail in Chapter 7.

Expenditures of higher education institutions rose from $6.7 billion in 1959-60 to $44.9 billion in 1975-76 (chart 1.23). The dollar amount from each source of funds has increased in this period, although proportionally, Federal and nongovernmental shares have decreased since 1963-64. Expenditures have increased more rapidly for public than for nonpublic institutions. For public institutions, total expenditures have risen from $3.8 billion in 1959-60 to $30.1 billion in 1975-76 (chart 1.24). By far the greatest portion of the increase has come from State funds; the State contribution grew from $1.6 billion to $13.1 billion. Another sizeable increase came from nongovernmental funds, which increased from $1.5 billion in 1959-60 to $10.9 billion in 1975-76.

A projected increase in spending on higher education contrasts with stationary spending levels forecast for elementary and secondary schools. Even when measured in constant 1974-75 dollars, expenditures of institutions of higher education are expected to continue to increase. The size of the age group which has had the greatest participation in higher education, 18 to 24 years old, will not begin to decline until 1985. From $35.8 billion in 1970-71, expenditures are expected to reach $46.5 billion in 1978-79 (chart 1.24). Capital outlay is expected to decline markedly during that period, with the entire increase occurring in current expenditures. Nonpublic institutions will experience only small increases in total expenditures; most of the increase will be observable in public institutions, where recent enrollment growth has been concentrated.

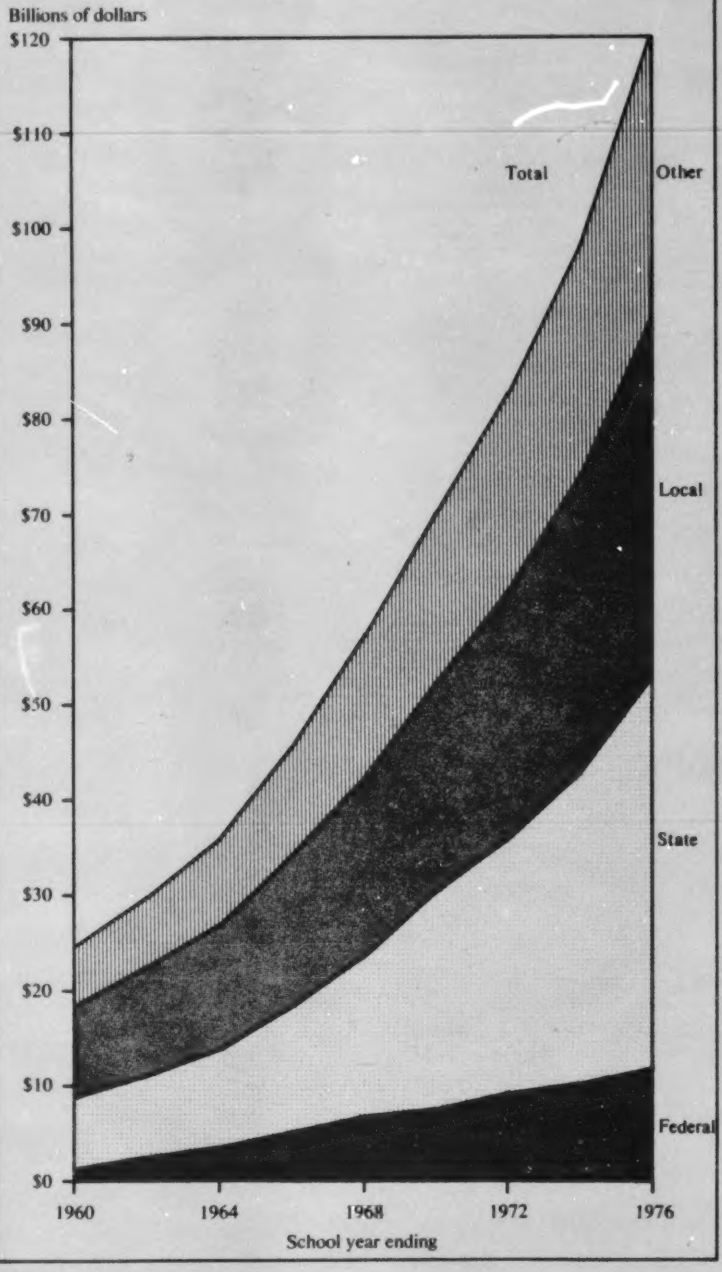
There is considerable difference in education expenditures per student for public and private higher education institutions. For publicly controlled institutions, expenditures per student in constant 1974-75 dollars increased from $1,936 to $2,547 from 1964-65 to 1974-75 (chart 1.25). For the same period, costs for privately controlled institutions rose from $2,593 to $3,553.

Total expenditures of educational institutions have grown dramatically since 1960, with Federal and State sources assuming larger shares of the burden.

See Table 1.21

Chart 1.21

Expenditures of Educational Institutions



In the last 15 years, total expenditures of elementary and secondary schools have quadrupled.

See Table 1.21

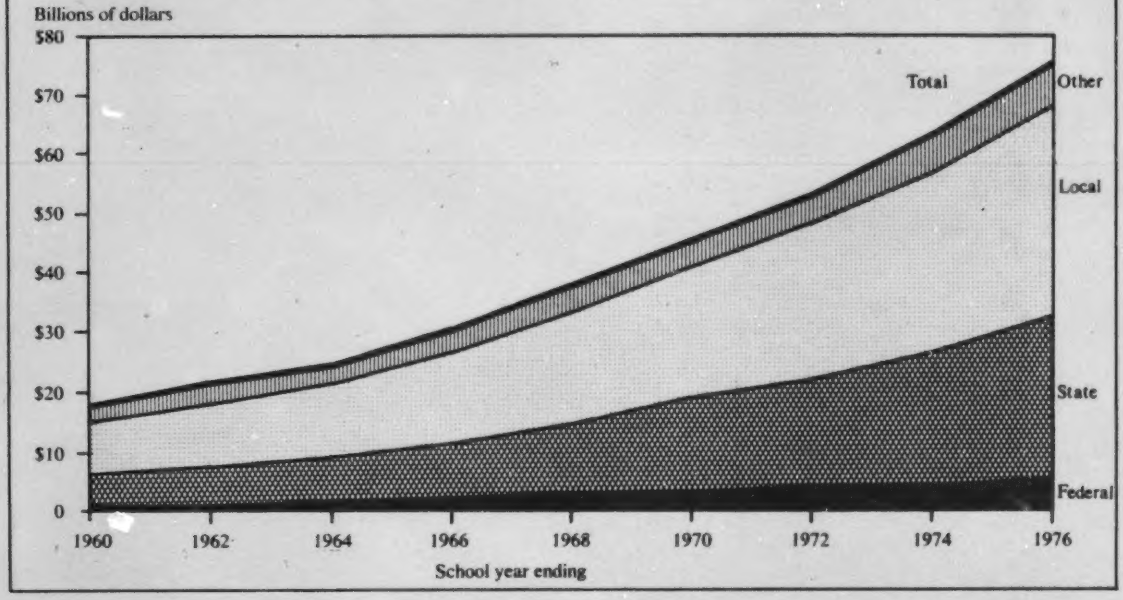


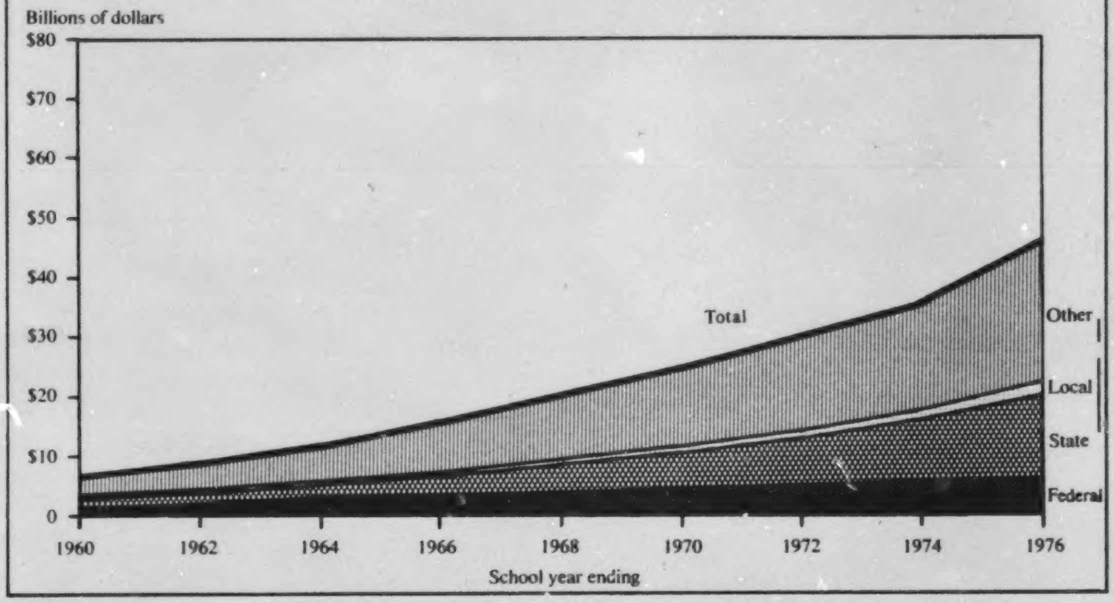
Chart 1.22

Expenditures of Elementary and Secondary Schools

The proportion of Federal funds making up the growing expenditures of institutions of higher education has declined.

See Table 1.21

Chart 1.23

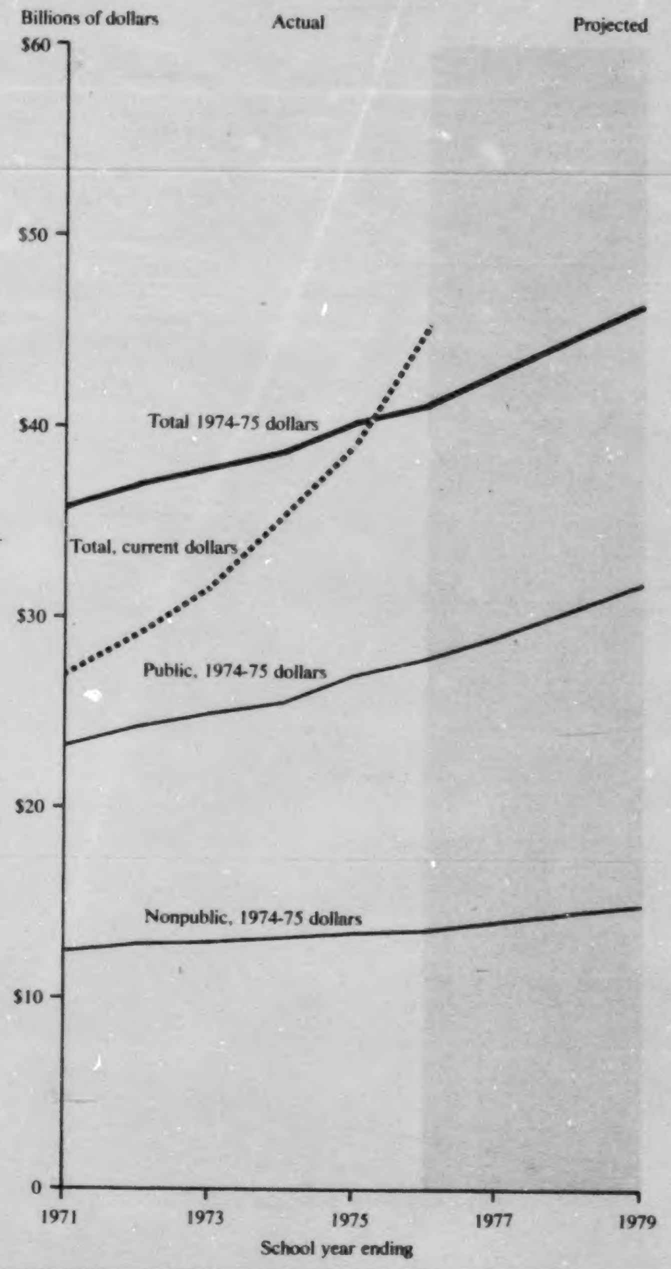


Total expenditures of institutions of higher education are expected to increase from $36 billion in 1970-71 to $47 billion in 1978-79, measured in constant 1974-75 dollars.

See Table 1.24

Chart 1.24

Expenditures of Institutions of Higher Education

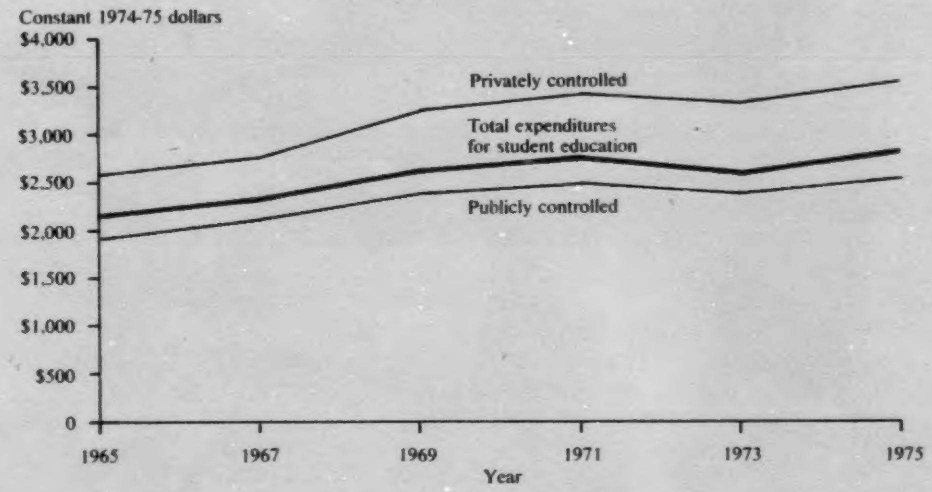


Education expenditures per student are higher for private than for public institutions of higher education.

See Table 1.25

Chart 1.25

Expenditures per Student by Institutions of Higher Education



Chapter 2

Outcomes of Schooling

There is, today, heightened interest in identifying and assessing the outcomes of schooling. The functions of the schools have included transmitting useful skills to the young, imparting cultural knowledge and norms, and instilling moral precepts—responsibilities the schools share with other environmental and social institutions. Yet, since the schools remain the most obvious, and certainly the best organized means of reaching young people, it is natural that increased pressures for accountability have focused attention on the need to measure more precisely the results of education.

A statement of the cardinal principles of education was prepared in 1918 by the Commission on the Reorganization of Secondary Education and published by the Bureau of Education, then a part of the Department of the Interior. While the principles addressed secondary education, they provide a context for examining the outcomes of education at all levels. The seven main objectives of education, as articulated in 1918, are:

1. Health
2. Command of fundamental processes
3. Worthy home-membership
4. Vocation
5. Citizenship
6. Worthy use of leisure
7. Ethical character

The traditional measures of outcomes, scholastic achievements and records of formal study, are still the most universally used bases for ascertaining an individual's competencies and for calculating the skills to be found within the population. Their use as credentials for entry into many specialized occupational fields makes them important indices. Yet simple counts of diplomas and degrees measure participation in educational activities but do not necessarily provide proof of competency to perform on the job or as consumers. The press has reported evidence from a variety of sources suggesting that the level of knowledge in subject areas or the ability to make wise choices as consumers has declined in recent years and, at times, is alarmingly low. The concern over competency has fostered attempts to assess the capability of citizens to perform specific tasks. The rapid growth in the formal educational system from the 1950's to the early 1970's brought with it a tremendous increase in the numbers of formal awards. During this period of expansion there have been moments of unease or doubt as to the impact of schooling on the levels of knowledge possessed by the population.

Both aspects of the outcomes picture—formal awards and mastery of knowledge or skills—will be reviewed. Of course, the statistical picture is most complete for examining formal awards, and a review of these data in light of social and demographic features does offer interesting insights. Changes in number of awards at different levels of education, for different programs, or by sex, all document aspects of the formally educated population. Thus the number of diplomas and degrees earned remains a reasonable starting point for considering the outcomes of schooling.

Diplomas and Degrees

A common indicator of the extent to which we have achieved the major goal of free, universal basic education is the high school graduation rate. This goal has been articulated for many decades and supported by the presence of high schools throughout the country. But opportunity is no guarantee that all those who have it will necessarily receive its benefits. The high school graduation rate, defined here as the ratio of the number of graduates in a given year to the size of the population from which they are drawn, exhibited a phenomenal increase between the years of 1910 and 1940, jumping from 8.8 percent to 50.8 percent (chart 2.1). After 1945, the rate again rose sharply, reaching 76.3 percent in 1964. Since then, the rate has remained almost constant, with minor fluctuations, never exceeding 77 percent. Universal free basic education, then, is presently being realized by about three-fourths of the eligible young people.

The rising high school graduation rate shows a consistently lower proportion of males completing high school than females. In 1949-50, the number of male high school graduates was 53.6 percent of the number of males in the relevant population group, while for females the corresponding number was 60.0 percent (chart 2.2). This difference in rates by sex has decreased but still exists. Graduates as a percent of the population subgroup in 1975-76 are projected to be 72.5 percent for males and 76.2 percent for females. In absolute numbers as well as percents, fewer males are graduating from high school than females. For the school year 1975-76, 1,552,000 males and 1,585,000 females are expected to receive diplomas.

The pattern of formal completion of education by sex reverses after high school graduation. Males consistently earn greater numbers of associate of arts, bachelor's and advanced degrees.

A variety of programs providing formal preparation for occupations are offered by institutions of higher education. These grant awards in curriculums of less than 4 years, and suggest the extent of participation of institutions of higher education in certificates granted in 1971-72 (chart 2.4). While males received a somewhat greater proportion of the awards than females, both sexes are substantially represented. The pattern of awards by sex, however, shows definite predominance of one sex in almost every area. The few exceptions are offered by data processing and fine, applied and graphic arts, where earned awards are more evenly divided between males and females.

vocationally oriented training. The number of students completing these programs rose in the school years from 1967-68 to 1971-72 with 190,039

The proportion of the population of young adults receiving college degrees shows that only a small fraction of the population currently is completing a college education. While there has been a steady increase in the college graduation rate since 1961, the increase has been from 16.6 percent in 1961 to only 26.3 percent in 1974, still just over one-fourth of the population group which might be considered eligible (chart 2.5). Chapter 4 will examine the closely related changes in patterns of attendance in postsecondary education for a variety of population cohorts. Greater numbers of males than females earn bachelor's degrees. In addition, a larger *proportion* of the male population graduates from college. The college graduation rate for males increased from 1961 to 1974, going from 20.9 to 28.8 percent of the population 21 years of age.

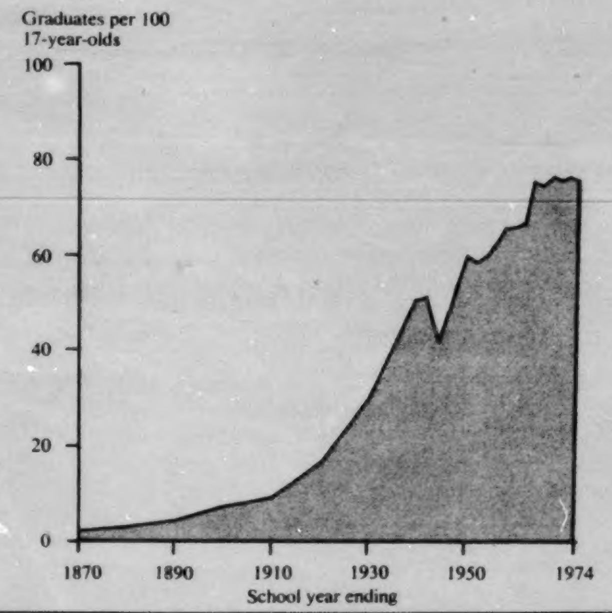
The numbers of degrees received at all levels have increased dramatically. In part due to the increases in population of young adult groups, bachelor's and higher degrees are evidence of the boom in higher education, particularly since 1960. Bachelor's degrees earned exhibited the greatest growth in number and a substantial rate of increase, rising from 186,500 in 1940 to 946,000 in 1974 (chart 2.6). Prior to 1960-61, bachelor's and first-professional degrees were reported together, so that the increase in numbers of bachelor's degrees is actually understated by these figures. The growth in the number of degrees since 1960 is particularly remarkable: in 1960, 368,323 bachelor's degrees were awarded; the total for 1974 is more than 2 1/2 times that number. The numbers for master's degrees show even greater rates of increase, though actual numbers are smaller.

The 2 other categories of earned degrees, first-professional and doctor's degrees, have exhibited distinct patterns of increase. First-professional degrees by definition include the categories of medicine, dentistry, other health professions (e.g. optometry, osteopathy, and veterinary medicine), law, and theology. Doctor's degrees are defined as the highest academic degree conferred by a university, and include the Ph.D. in any field, doctor of education, doctor of juridical science, and doctor of public health.

The high school graduation rate rose dramatically between 1910 and 1963, but has now leveled off at 78 percent.

See Table 2.1

Chart 2.1 High School Graduation Rate

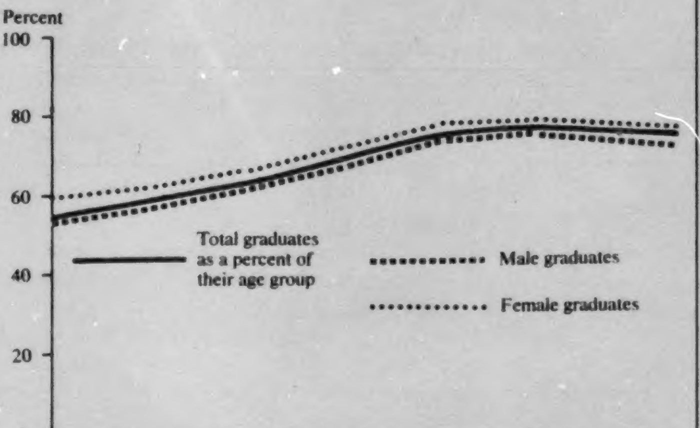


The high school graduation rate has been consistently higher for females than for males.

See Table 2.2

Chart 2.2

High School Graduation Rates, by Sex

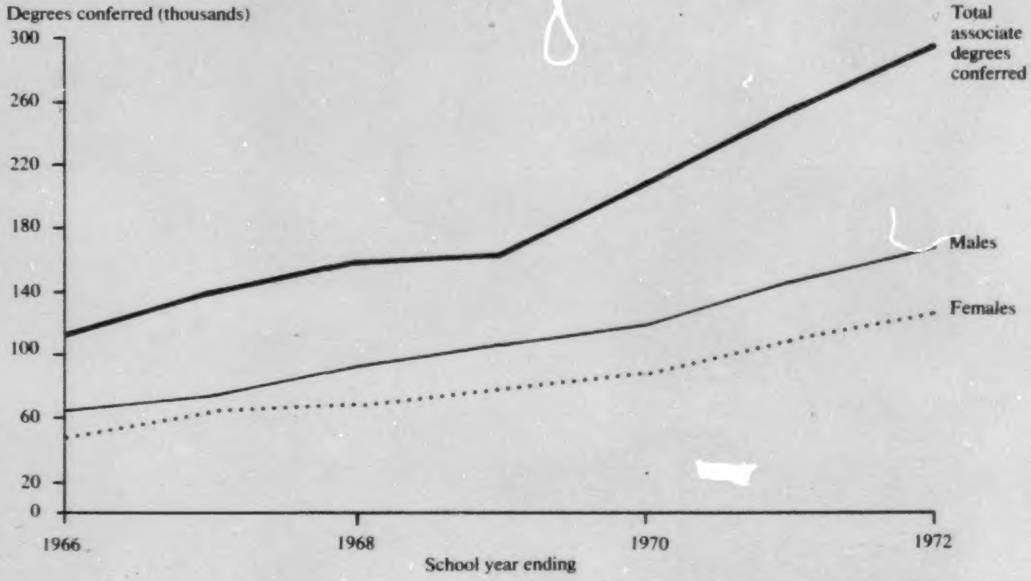


More than 2½ times as many associate degrees were awarded in 1972 as in 1966.

See Table 2.3

Chart 2.3

Associate Degrees

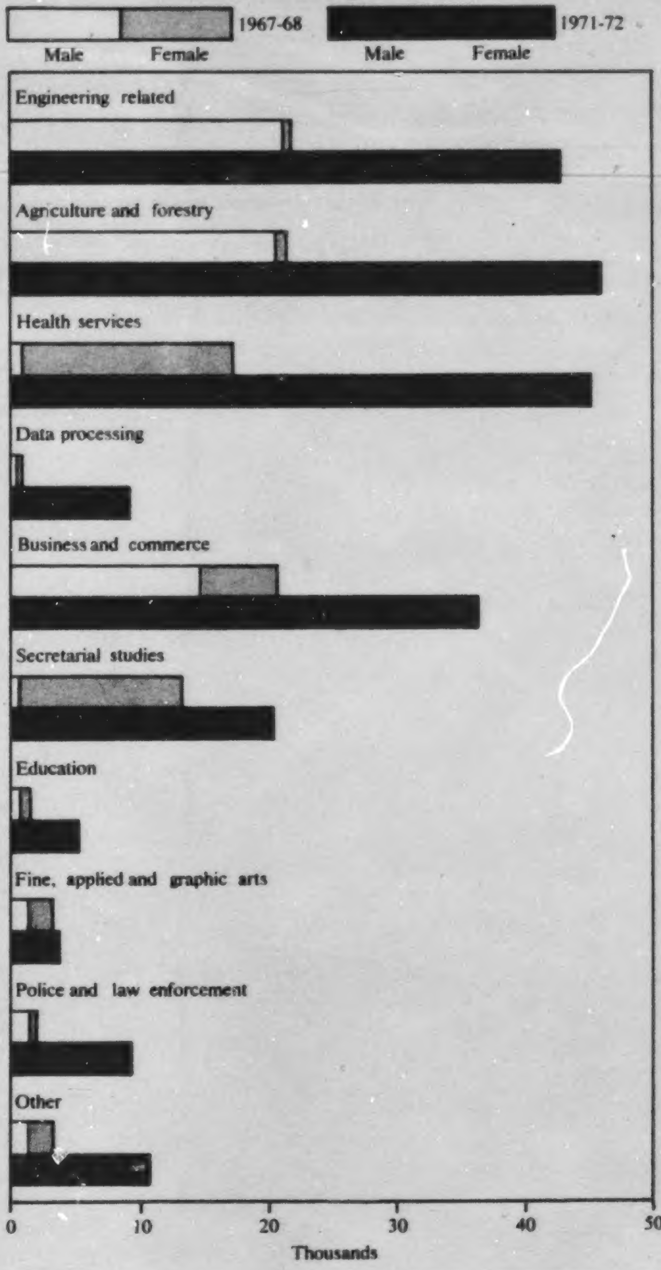


Awards for occupational programs show little change in completions of programs by sex.

See Table 2.4

Chart 2.4

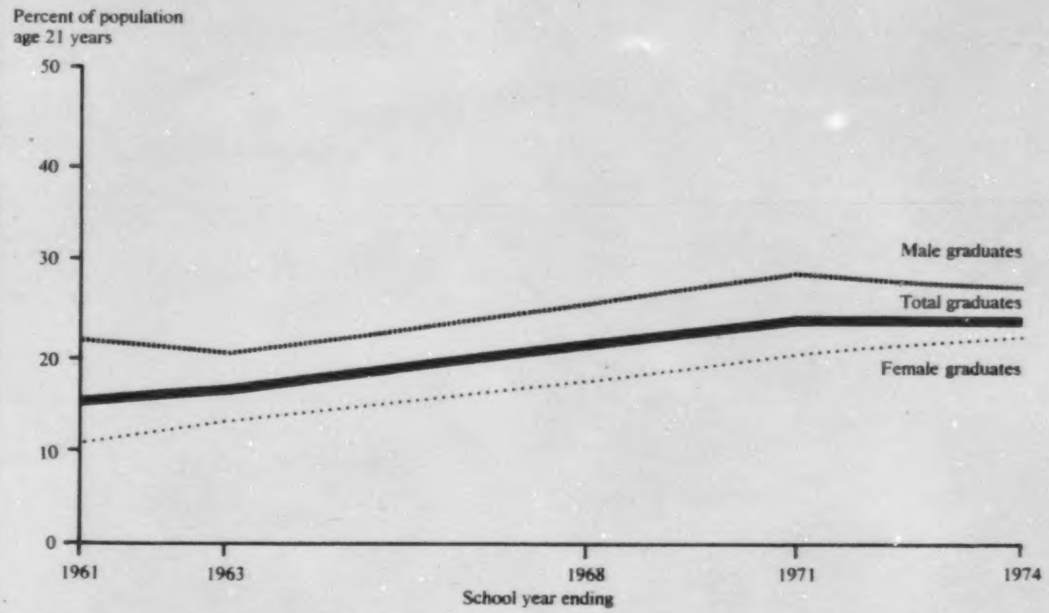
Occupational Programs Completed in Institutions of Higher Education



The college graduation rate continues to be higher for males than for females.

See Table 2.5

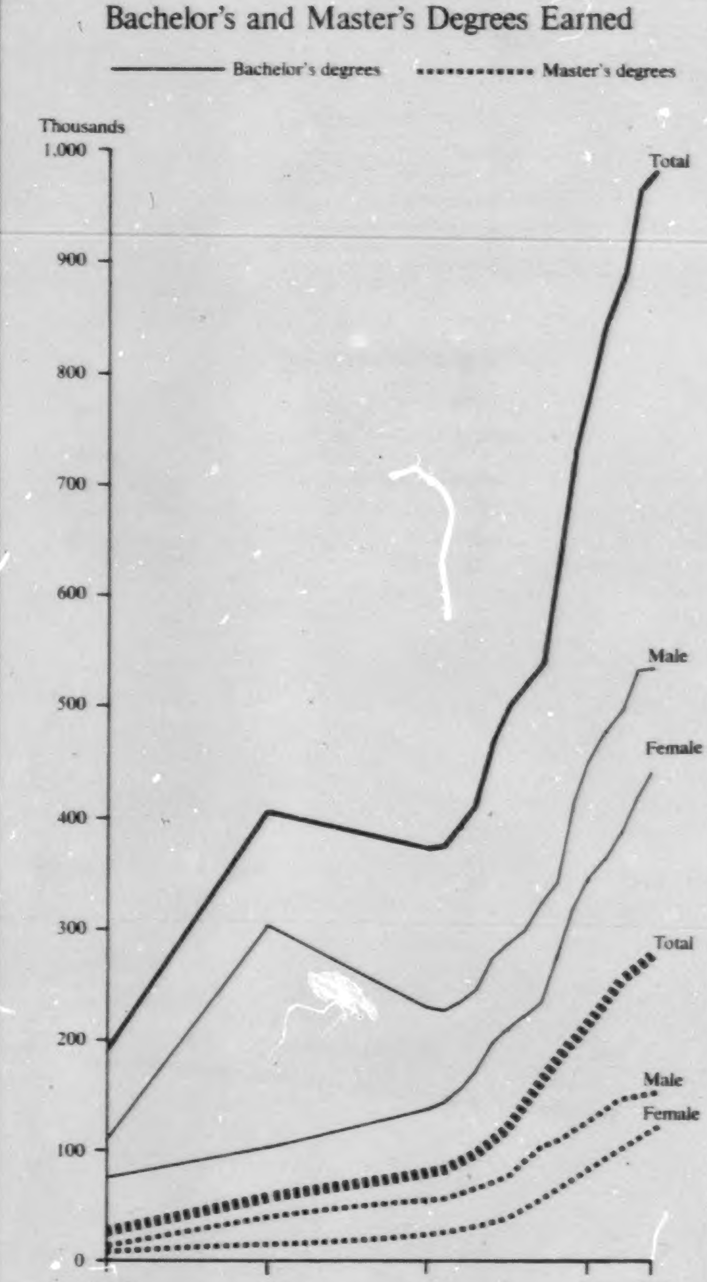
Chart 2.5



There has been a spectacular increase in the number of bachelor's degrees awarded, from 186,500 in 1940 to 977,000 in 1974.

See Table 2.6

Chart 2.6



Males receive most of the doctor's and first-professional degrees awarded.

See Table 2.7

Chart 2.7

Doctor's and First-Professional Degrees Earned

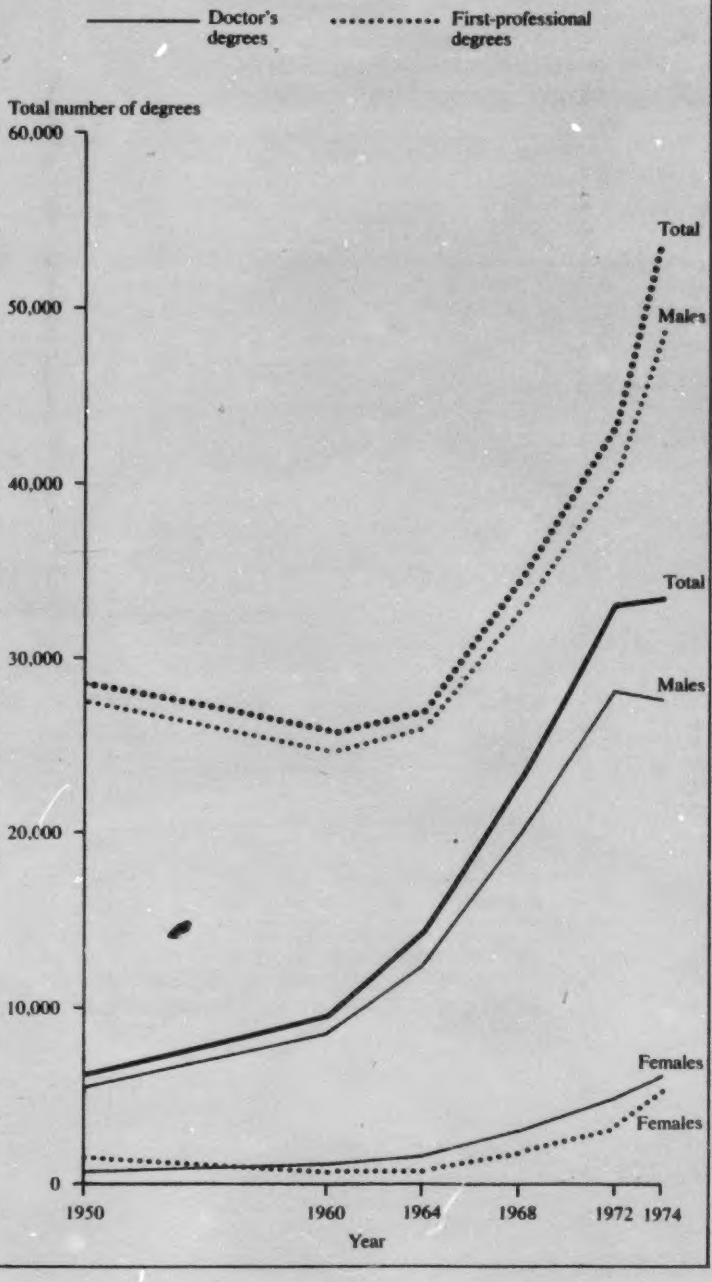


Chart 2.8a

Education has shown the greatest increase in number of awards since 1955 at both the bachelor's and master's levels.

See Table 2.8

Field of Study for Earned Degrees

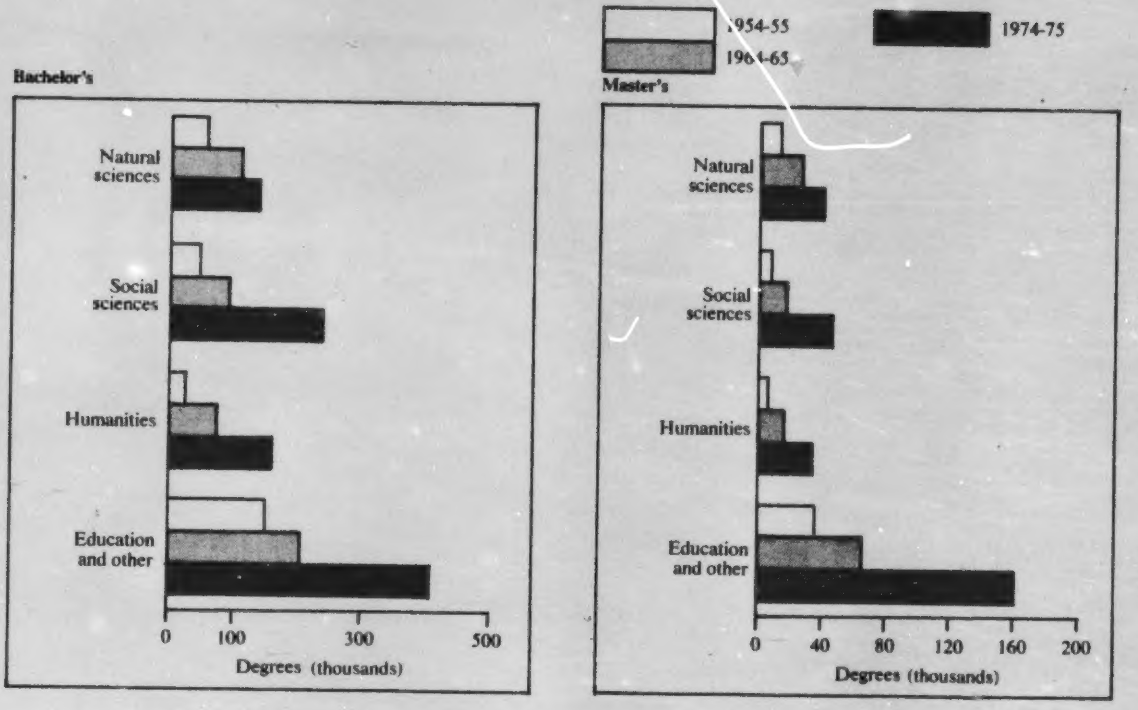
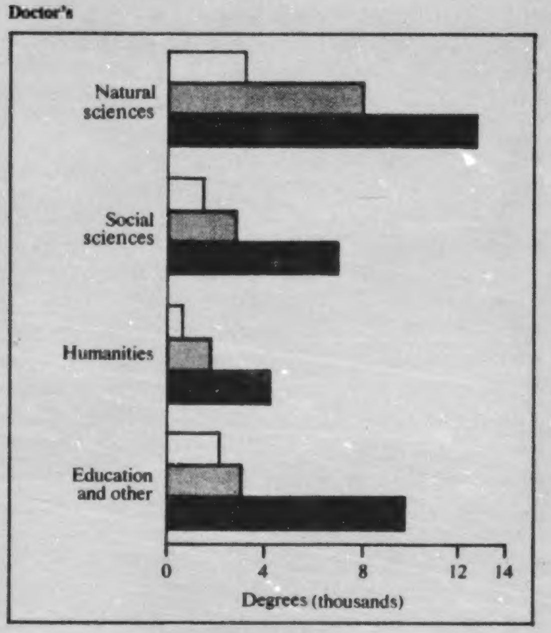
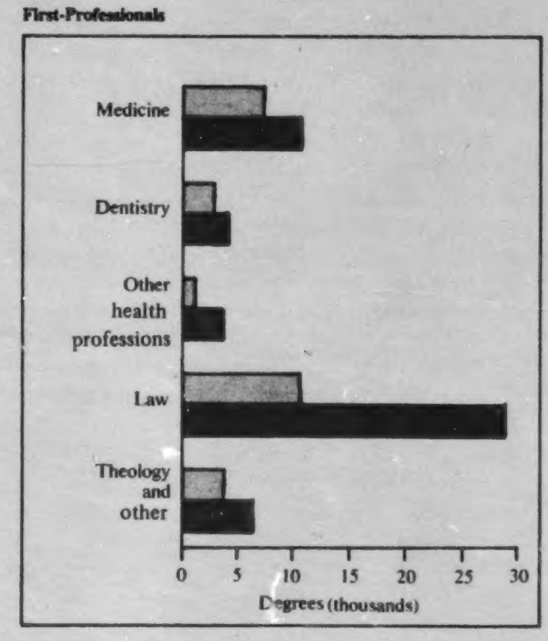


Chart 2.8b

Degrees in social sciences now dominate doctor's degrees, while law accounts for the greatest number of first-professional degrees.

See Table 2.8





Achievement in Subject Areas

A growing educational system accommodated the stress of rapidly expanding enrollments and moved individuals "through the system," as evidenced by large increases in formal awards and graduations. But there is uncertainty about the learning that these awards are supposed to reflect. Do these recent graduates know more, do they know the same as their counterparts receiving awards in prior years, or do they know less? Some evidence is now available to suggest answers and, from all indications, the results themselves are mixed.

A major source of reliable information on a nationwide basis is the data collected, analyzed, and reported by the National Assessment of Educational Progress (NAEP), which reports on the knowledge, skills, understandings, and attitudes of Americans in four age groups: 9-year-olds, 13-year-olds, 17-year-olds, and young adults of ages 26-35. The results of several representative assessments are reported here.

In surveys of eight learning areas conducted over the past 6 years, males were found generally to do better than females in four subject areas: mathematics, science, social studies, and citizenship. In the other four learning areas (writing, reading, literature, and music) females consistently outperform males only in writing. They maintain a slight advantage in music, performing higher than males at ages 9, 13, and 17, but drop behind at the young adult ages 26-35. In the male-dominated areas (mathematics, science, social studies, and citizenship), males and females are not far apart in performance levels. However, the differences are larger for older age groups.

Performance on mathematics exercises shows differences by sex at each age level. Overall performance for the 9- and 13-year-old groups, measured in 1972-73, were marked by higher scores for males than females, though the differences in medians (the middle scores) were small (chart 2.12). For 9-year-olds, the national median percentage correct for males was 39.3; for females, 35.3. Medians for 13-year-olds were 53.8 for males and 51.4 for females. Overall mathematics medians for adults ages 26 to 35, however, were 65.7 for males and 53.4 for females.

When mathematics results are examined by content areas, comparative performance shows some interesting variations. Females at the 9- and 13-year-old age levels slightly outperform males in numbers and numeration (the mathematic basics: addition, subtraction, multiplication, and division). They lose their advantage as adults, however, showing a median of 60.5 percent, compared with 70.6 percent for males (chart 2.13). In geometry, 9-year-old boys already show an advantage which they continue to hold at subsequent age levels. In consumer mathematics, males also have the lead for the two older age groups. This result is surprising, since it is assumed that females do at least an equal share of household buying.

Results on selected exercises which test responses in consumer situations show performance improving among older age groups. Even so, the level of performance is disconcerting. When asked to determine the lowest cost per ounce of rice, given information about alternative package sizes and prices, only 25 percent answered correctly. All age groups performed better when asked to calculate the difference between a 10- and 15-percent discount; 49 percent of the 13-year-olds, 76 percent of the 17-year olds, and 86 percent of the adults gave the right answer. However, in spite of this favorable performance on exercises relating to discounts, people did less well on a simpler mathematics problem, this time related to sales tax. People would rather think of discounts than sales tax, it appears. When asked to compute the difference between a 3- and a 4-percent sales tax (an exercise requiring calculations similar to those for the discount problem), only 56 percent of the adults gave the right answer.

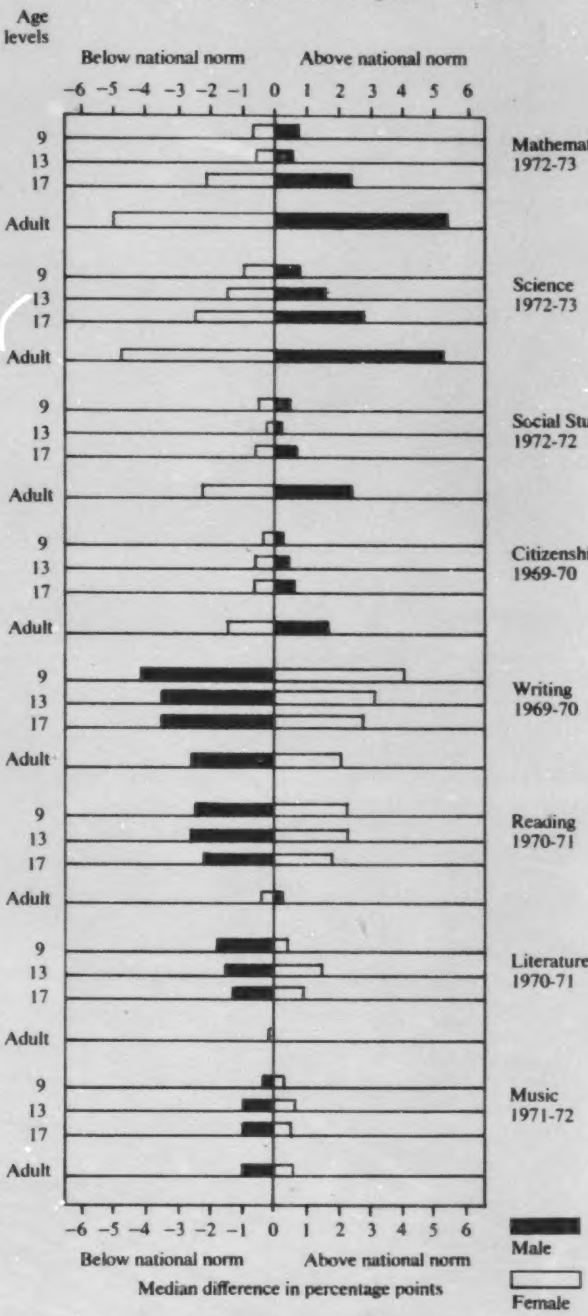
On the exercises covering the specific mathematics topics of numbers, measurement, geometry, and consumer math, the results in all topic areas indicated Blacks were at a disadvantage. Differences in performance were greater for groups at older age levels. Differences in Black and White performance were greatest in the measurement content area, the area in which national median percentages were generally highest (chart 2.15). For 9-year-olds, the median percentage correct in exercises requiring skills in measurement was 49.5 for Whites, 24.1 for Blacks. In all content areas, differences in medians were greater for adult populations than for the younger age levels.

Males perform better than females in mathematics, science, social studies and citizenship, at all age levels.

See Table 2.9

Chart 2.9

Achievement in Subject Areas

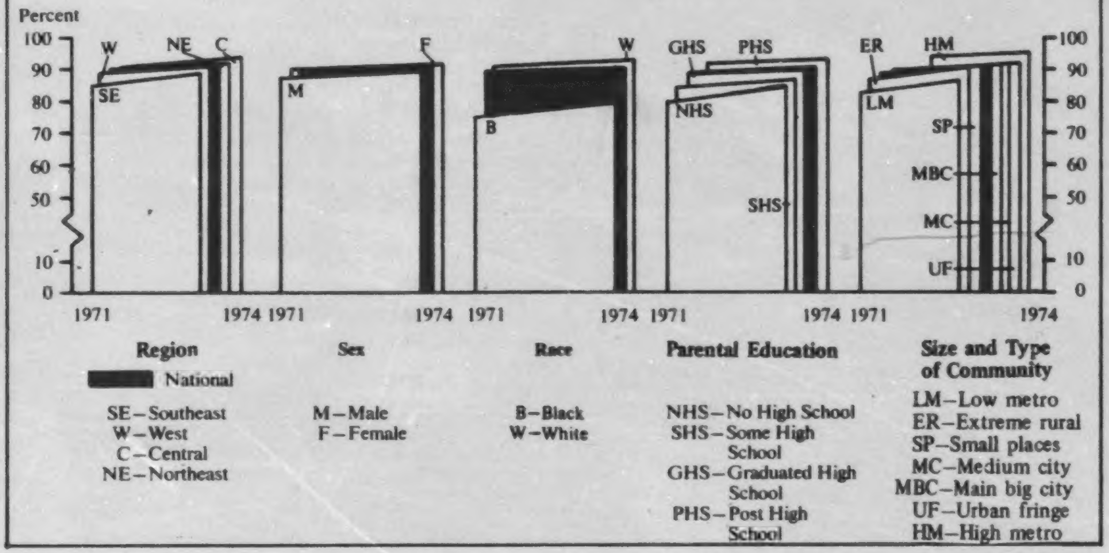


Reading performance among 17-year olds increased for all subgroups from 1971 to 1974.

See Table 2.10

Chart 2.10

Reading Performance



Writing performance increased for 9-year-olds but decreased for 17-year olds between the years 1970 and 1974.

See Table 2.11

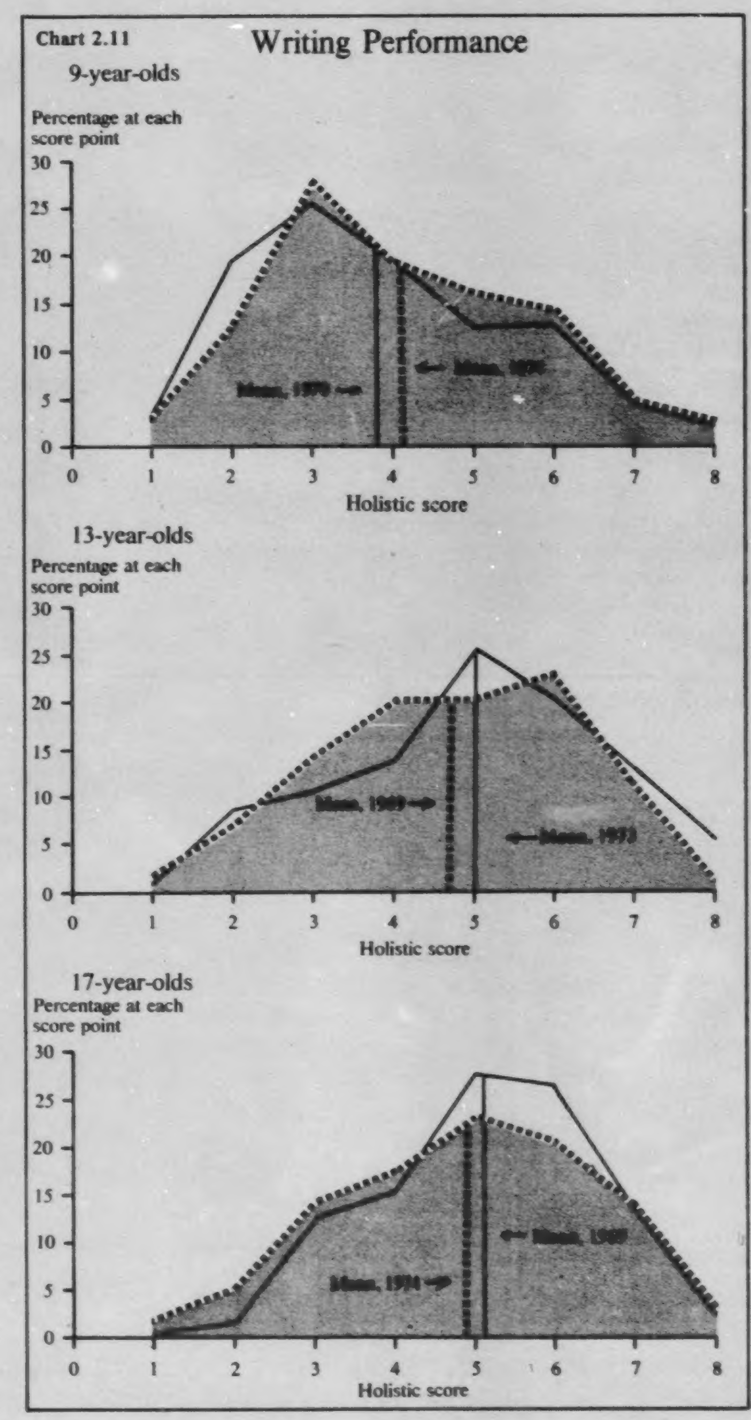


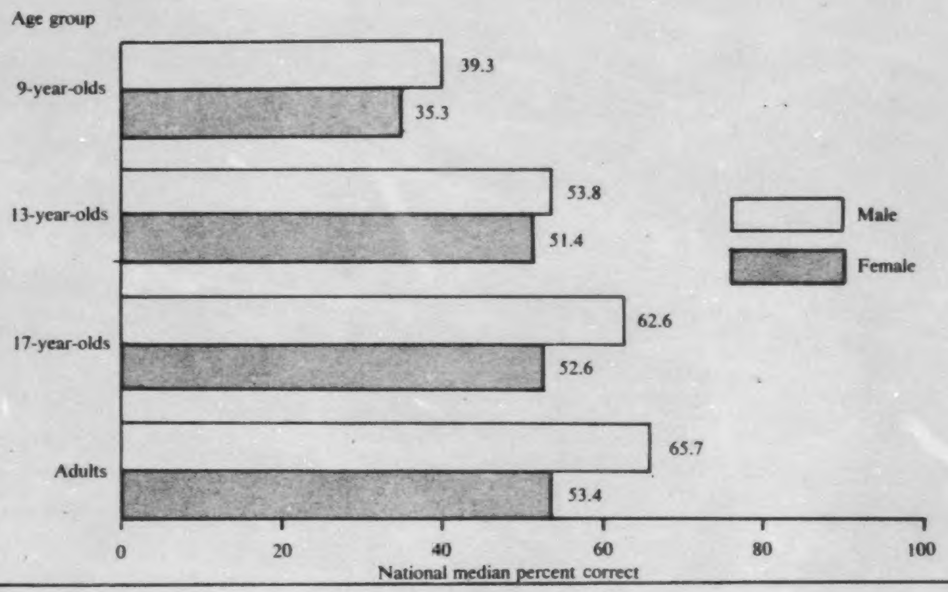
Chart 2.11 Writing Performance

The difference between male and female scores in mathematics is greater for adults than for 9-year-olds.

See Table 2.12

Chart 2.12

Performance in Mathematics

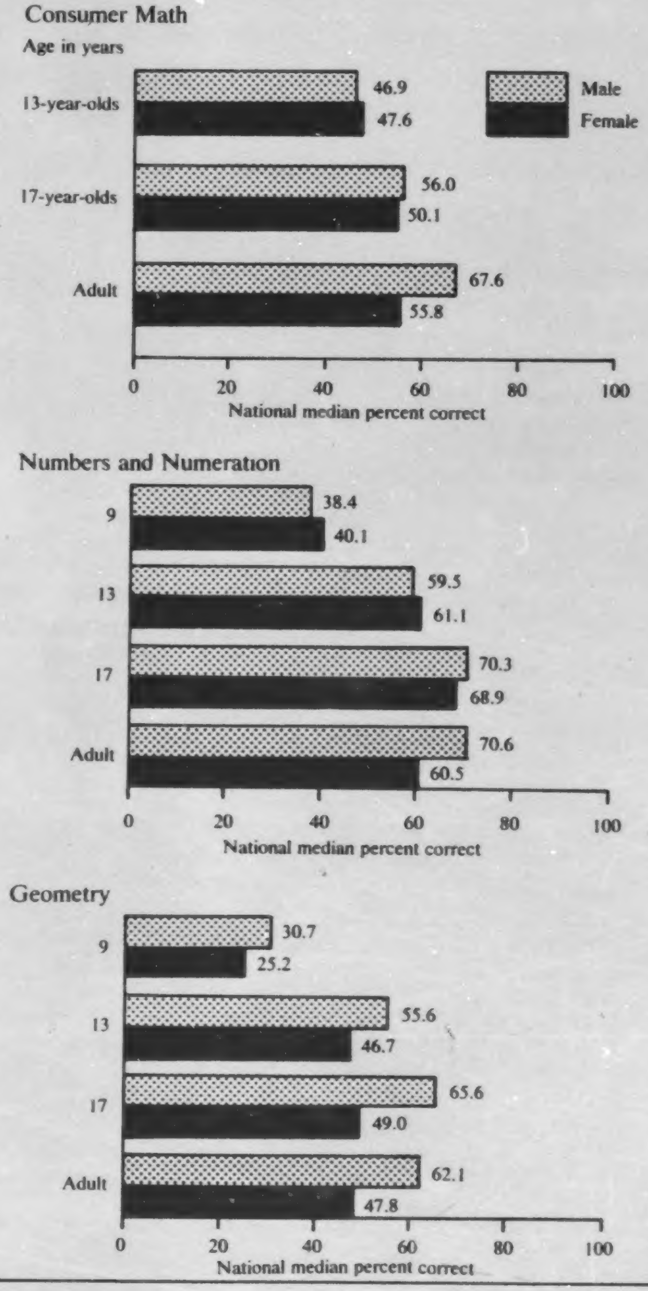


For each mathematics content area, the gap between male and female scores is larger for older age groups.

See Table 2.12

Chart 2.13

Performance in Mathematics Content Areas, by Sex

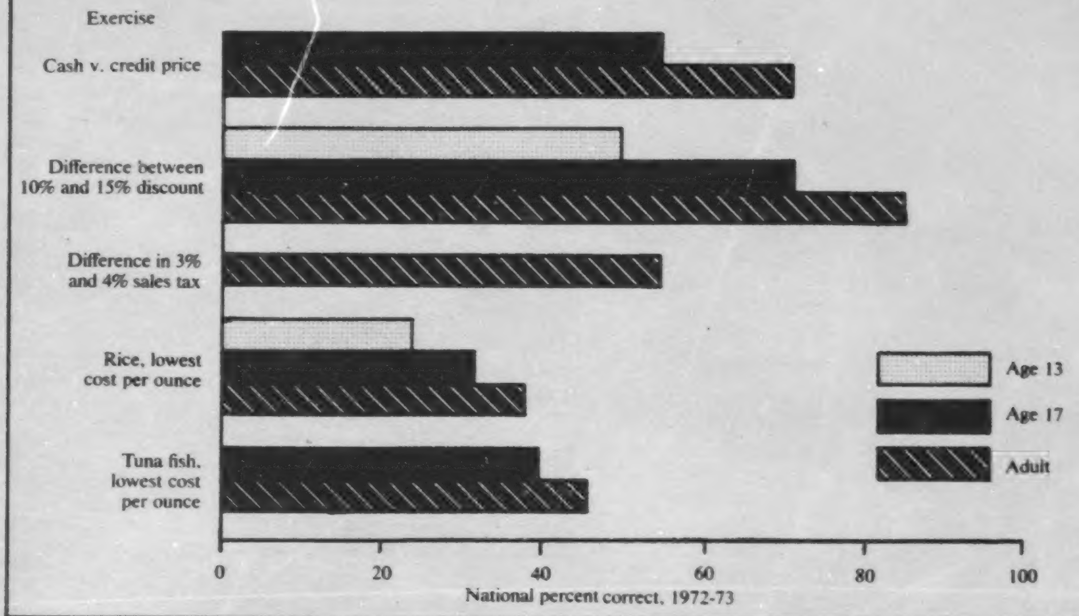


Fewer than one-half of the young adult population can successfully pick out the size of a can of tuna fish which offers the lowest cost per ounce.

See Table 2.14

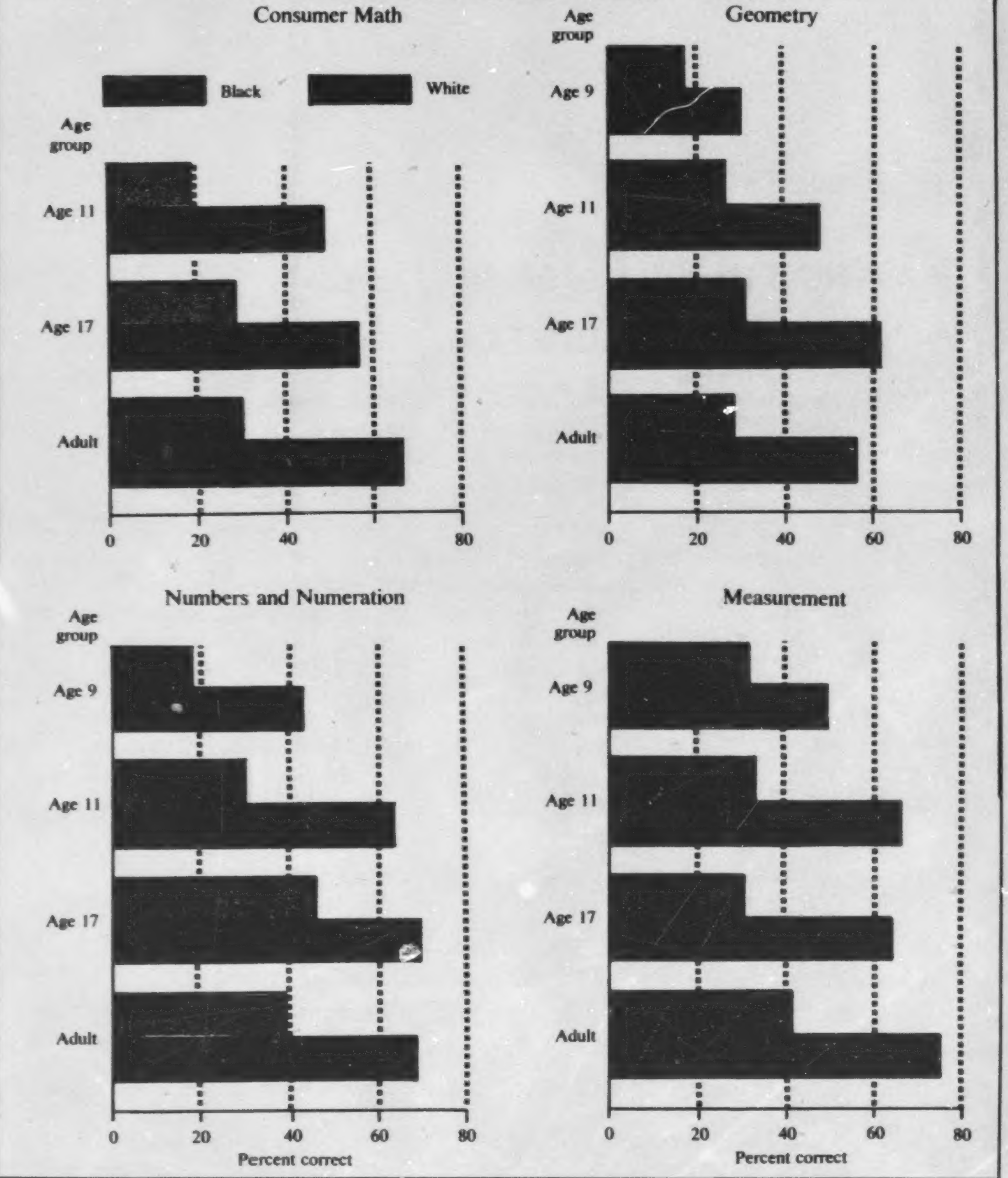
Chart 2.14

Performance on Consumer Problems



The differences in Black and White performance on mathematics exercises is greatest in the content area of numbers and numeration. See Table 2.15

Chart 2.15 Performance in Mathematics Content Areas, by Race



Chapter 3

Concerns of Elementary and Secondary Education

Describing the problems and immediate concerns facing education within a statistical context is difficult for several reasons. Many educational problems are fostered by changing economic conditions or by external events, arising quickly and sometimes manifested in unpredictable ways. These concerns shift enough with time that it may be inappropriate or inefficient to regularize data collection concerning them. Other problems exist or have existed for some time but are unnoticed because they do not generate disruptions or violence or because their impact is difficult to measure. Thus, neither reliable, extended time series nor current, complete statistical portraits are available for examining many problems.

There are, however, some sources of data that provide useful indicators of the concerns facing elementary and secondary education in this country. Attitudinal data, compiled from polls of public opinion, are a useful source of information on problems as perceived by the public. More traditional statistics on participation in schooling and the utilization of school resources can often illuminate aspects of particular problems.

The Education Enterprise as Viewed by the Public

The concerns of the educational system most likely to be the focus of attention are the concerns articulated by those people who support the schools. For the public schools, this means the citizens who pay taxes to ensure the existence of these schools and who choose administrative school boards to direct them. A useful index of the concerns facing education is therefore the enumeration of educational problems as perceived by the public. These are the problems with which educators must deal to satisfy an important constituency.

A national poll asking the public to identify the major problems with which public schools in their communities must deal demonstrates the persistence of education's problems. Problems of discipline, integration and segregation, and finances have been most frequently cited each year from 1970 through 1975. Discipline was named by 23 percent of the public in 1972, 1974, and 1975, leading the next problem by at least 5 percentage points (table 3.1). Other problems cited include securing "good" teachers (cited among the top six problems each year since 1970), use of drugs and dope, and the growing size of schools.

Schools have been affected by the growing lack of confidence in institutions in the country. In 1973, 36.8 percent of the public expressed "a great deal" of confidence in persons running educational institutions (chart 3.2). In 1974, this figure rose to 49.0 percent but in 1975 fell to 30.9 percent. While education outranked major companies and other governmental units, it fell below the scientific community and remained below medicine in its ability to sustain confidence.

Despite dissatisfaction with education, the public remains committed to its support, as shown by the proportion who maintain we are spending too little money on improving the educational system. Close to 50 percent of respondents in 1972, 1973, and 1974 stated that too little was being spent (chart 3.3); in contrast, only about 10 percent felt too much was being spent. This information reinforces the view that finances remain a major concern facing education.

The public's opinions of integrated schooling help to identify specific aspects of desegregation which are of concern. More than 90 percent of White respondents in 1972, 1974, and 1975 voiced no objection to sending their children to schools where a few children were Black (chart 3.4). When the question was altered to ascertain objections to sending White children to schools with more than half the children Black, 41.9 percent of White respondents offered no objection in 1972 as did 37.2 percent in 1975. However, considerable opposition exists to busing school children across district lines to achieve racially integrated schools. More than three-fourths of the population (76.6 percent in 1972 and 78.1 percent in 1975) stated they were opposed to busing across district lines (chart 3.5). Nevertheless, some White respondents (17.2 percent in 1975) do favor busing of Black and White children. Of interest is the fact that there has been relatively little change nationally in these percentages since 1972, in spite of specific instances of severe problems.

Problems related to discipline and violence in the schools have been documented by teachers surveyed about instances of physical assault or property damage. In 1973, 8.5 percent of these teachers had been attacked or had had their property maliciously damaged by students (chart 3.6); in 1975, 12.9 percent reported attacks or property damage. When asked the more general question of whether or not student violence was a problem in their school, 23.2 percent in 1974 said it was either a major or minor problem; in 1975, 26.1 percent responded that it was a problem. While the latter figures are subjective, they reinforce the public's opinion that discipline is a major problem.

There is a surprising uniformity of opinion among adults from communities of all sizes and from all regions of the country that use of drugs by young people is a serious problem (chart 3.7). Fifty-four percent of persons in communities with population of 1 million and over said drugs were a serious problem, compared with 51 percent in communities of under 2,500. Responses by region varied up to 12 percentage points, ranging from the lowest of 51 percent of persons in the East who believe drugs to be a major problem to the highest of 63 percent in the Midwest. A large majority of respondents felt strongly enough about the problem to advocate mandatory attendance by young people at educational programs on the effects of drugs and alcohol (chart 3.8).

The public has remained consistent for 6 years in its view of the most important problems facing public schools.

See Table 3.1

Chart 3.1

The Major Problems

From national samples asked,

"What do you think are the biggest problems with which the public schools in this community must deal?"

The percentages of respondents citing problems were:

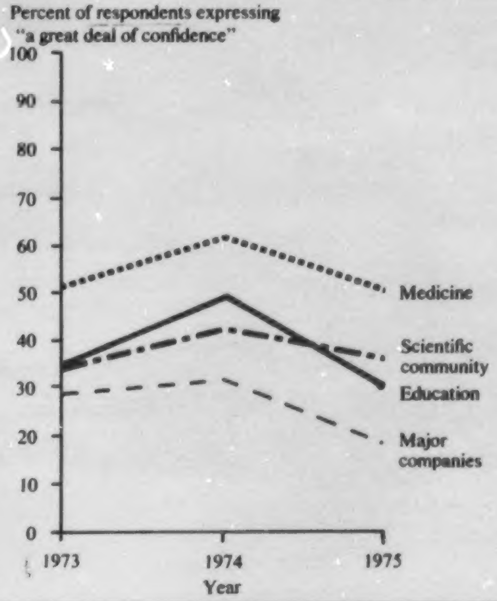
1970	1972	1974	1975
Discipline 18%	Discipline 23%	Discipline 23%	Discipline 23%
Integration/ segregation 17%	Integration/ segregation 18%	Integration/ segregation 16%	Integration/ segregation 15%
Finances 17%	Finances 19%	Financial support 13%	Financial support 14%
Teachers 12%	Teachers 14%	Use of drugs 13%	Teachers 11%
Facilities 11%	Large school/ large classes 10%	Difficulty of getting "good" teachers 11%	Size of school/ classes 10%
Dope/drugs 11%	Parents' lack of interest 6%	Size of school/ classes 6%	Use of drugs 9%

Between 1974 and 1975 there was a marked decline in the public's confidence in people running educational institutions.

See Table 3.2

Chart 3.2

Confidence in the People Running Institutions



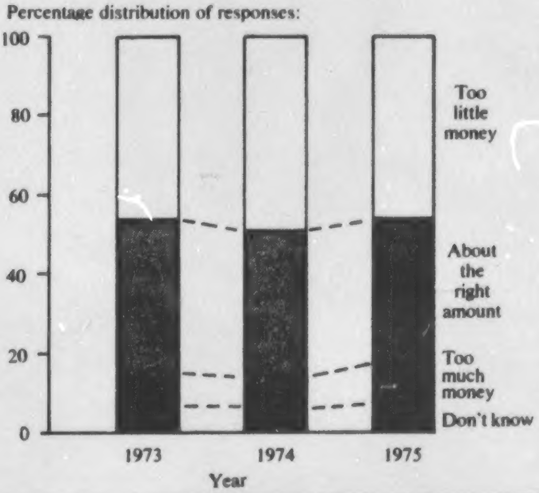
At the same time about one-half of the public has remained convinced that too little money is being spent to improve education.

See Table 3.3

Chart 3.3

Spending Levels for Education: Public Opinion

"Are we spending too much, too little, or about the right amount on improving the Nation's educational system?"

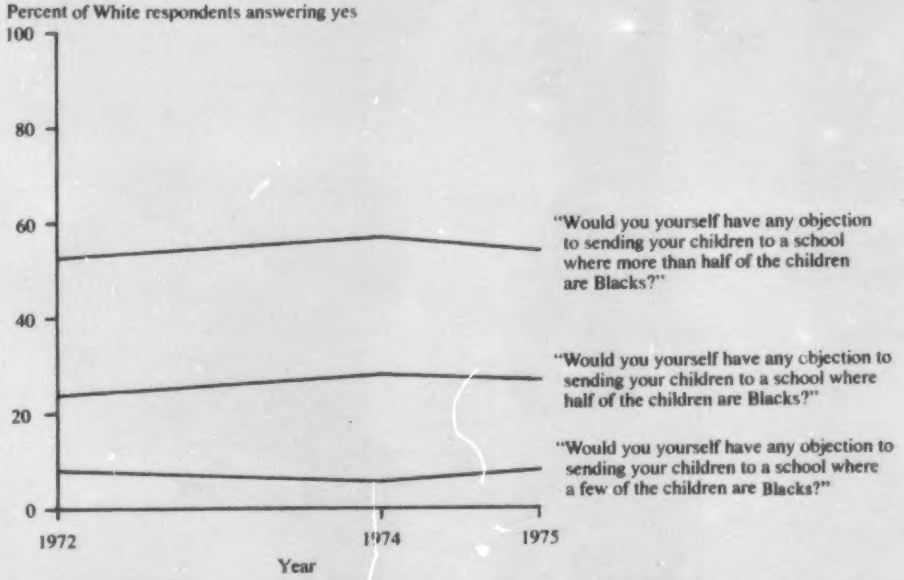


Only a small percentage of White respondents would bare object to sending their children to schools where up to one-half the children are Black

See Table 3.4

Chart 3.4

Integrated Schooling: Opinions of White Respondents



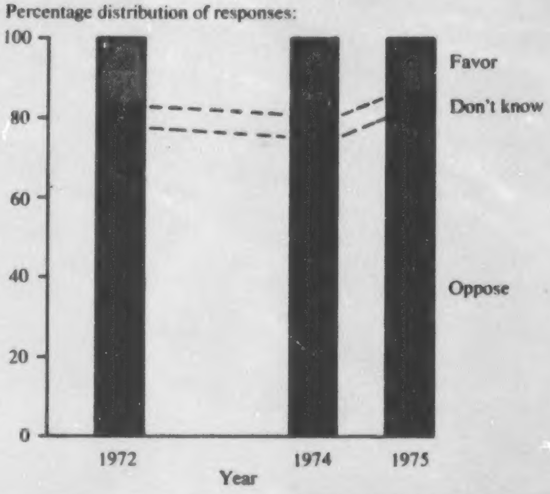
Opposition to busing is relatively unchanged since 1972.

See Table 3.5

Chart 3.5

Interdistrict Busing: Public Opinion

"In general do you favor or oppose the busing of Black and White children from one school district to another?"



Teachers report an increase in personal attack and property damage since 1973.

See Table 3.6

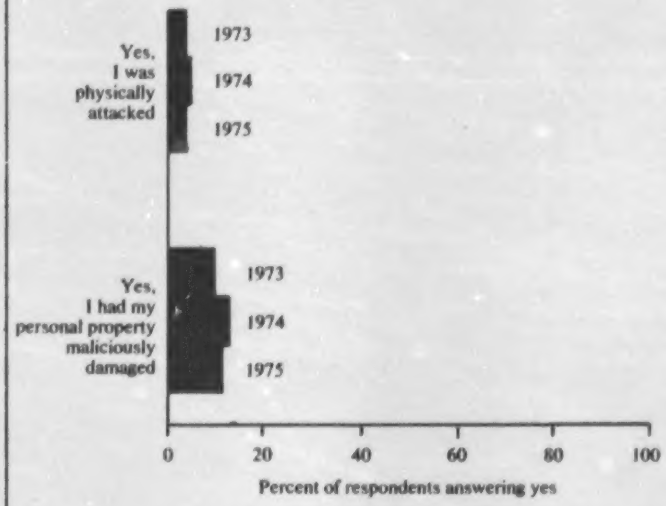
A growing percentage of teachers believe student violence is a problem in schools.

See Table 3.6

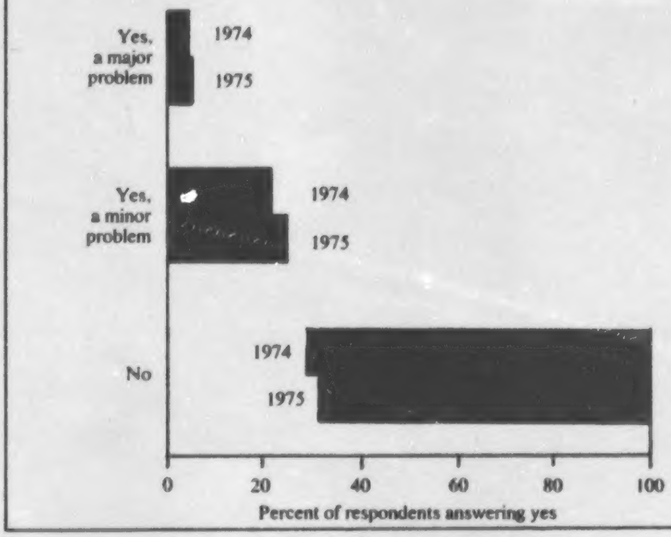
Chart 3.6

Student Violence as Viewed by Teachers

Q: Have you as a teacher been physically attacked or have you had your personal property maliciously damaged by a student this school year?



Q: Generally is student violence a problem in your school?



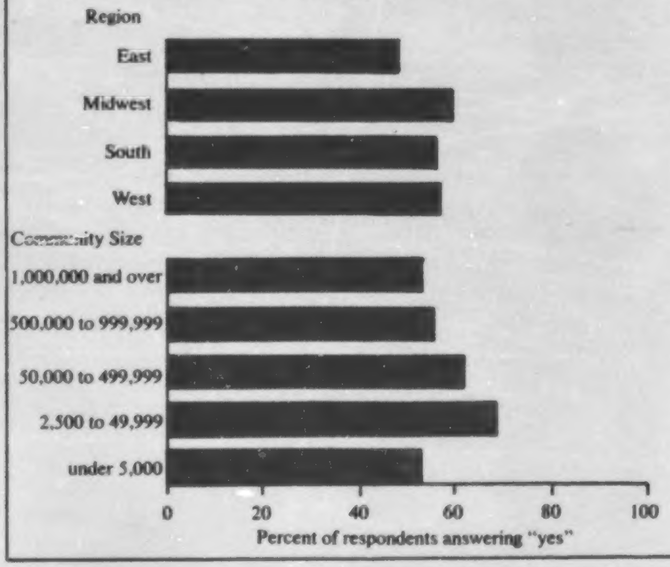
Individuals from communities of all sizes and from all regions agree that use of drugs is a serious problem in their community.

See Table 3.7

Chart 3.7

Drug Use by Young People: Public Opinion

Q: Is the use of drugs by young people a serious problem in this community?



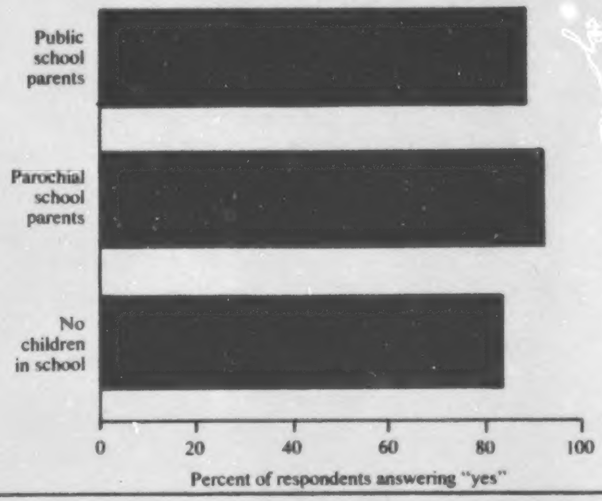
A substantial majority of parents would require attendance at drug education programs.

See Table 3.8

Chart 3.8

Attendance at Programs on Effects of Drugs: Public Opinion

Q: Should the schools in this community require students to attend a program on the effects of drugs and alcohol?



Educational Disparities and Special Needs

The concerns facing education in this country grow out of the basic mission of education. Schools were established to educate young people. The preceding chapter, in offering a record of formal accomplishment, gave some evidence that responds to the general inquiry, "Do they?" To see how many are participating in formal schooling, the completion and graduation statistics cited there may be supplemented by statistics showing what proportion of the population of young people are in school. Still another index is furnished by statistics on achievement and on the knowledge gained by persons going through the system. Statistics providing general indices of both completion and achievement were examined in chapter 2. More specific evidence of participation and achievement, as they affect particular groups, is examined here.

One of the most basic indices available, a measure of reading ability of persons at the point of exit from the basic educational system, gives considerable cause for concern. Several specific, practical reading exercises were administered to a national sample of 17-year-olds. One of the exercises required interpretation of text on an insurance policy, and another a response to directions on a traffic ticket. In a group of superior readers, identified on the basis of high performance on standardized reading examinations, 36.7 percent answered the insurance policy exercise correctly, and 60.0 percent understood the traffic ticket (table 3.9). When the performance of this group was used to define the "highest level of performance" that could reasonably be expected of all 17-year-olds, the adjusted calculations of performance by population groups were still discouraging. Differences in performance by groups defined on the basis of region or metropolitan area revealed substantial disparities in achievement levels, particularly on the insurance policy exercise (charts 3.9 and 3.10).

However discouraging performance by even superior students in the educational system may be, it is often more discouraging to view the considerably greater problems of dropouts in relation to knowledge and understanding, job opportunities, and income prospects. Thus it is of concern that sample survey information shows over 10 percent of persons 14 to 24 years old in 1973 had left school before receiving a high school diploma (table 3.11). The percents of those who had left schools were much higher for Blacks than for Whites. Among 18-

and 19-year-olds, 27.7 percent of Black males and 23.0 percent of Black females were dropouts in 1973, in contrast to 14.1 percent for White males and 15.2 percent for White females. These figures represent some reduction in percentages of dropout for each population group since 1967, but the improvements are small. Figures on dropouts in 1974 show high dropout percentages among young people in several distinct ethnic categories which are identified collectively as being of Spanish origin. Over 35 percent of males and 25 percent of females of this group of 18- and 19-year-olds were dropouts in 1974, against 18.7 and 14.7 percent for all races (chart 3.12).

Ambitious reform efforts in the 1960's focused on education as a major means of modifying the social structure and improving access to the mainstream of society. Since that time, members of many pupil population groups have received a variety of services from programs designed to meet their special needs. Federal Government programs, in 1972-73, administered through local education agencies (school districts) reached an estimated 37 percent of the 18 million students from low-income areas (chart 3.13). The highest rate of program participation by persons in a population group identified as having special needs was 77 percent of the 249,000 children of migratory workers. Other population subgroups that have received some services especially designed to serve their needs are handicapped children, children from limited or non-English speaking environments, or neglected or delinquent children.

An examination of the specific services provided to these population groups shows an attempt to match needs and services. More than half (53 percent) of the dropouts and potential dropouts participating in Federal programs in 1972-73 received assistance in the area of vocational skills and attitudes (chart 3.14). Reading, attendance and school social work, and food services were each provided to at least 35 percent of this group. Among students in low-income areas, assistance in academic areas was most common. In both public and private schools, almost 60 percent of the students receiving help had assistance in reading or English (chart 3.15). Over 25 percent of the public school students had help in natural sciences and mathematics.

The racial composition of schools reflects continued patterns of segregation in living areas. Integration of schools in the late 1960's and early 1970's altered the percentage of minority enrollments in the schools (chart 3.16). The steady progress toward integration in the South has not been matched in other parts of the country. Demographic and social conditions clearly provide constraints within which further attempts to alter the racial composition of schools must be examined.

Identifying, and serving the needs of, handicapped individuals is a major concern facing education. While there are severe definitional problems in discussing conditions of the handicapped and their incidence by region or racial group, the percent of students who have been placed in classes for handicapped children varies by region. A greater proportion of persons from the South than from other regions were diagnosed and placed in special instructional groups in 1973. Over 4.5 percent of public school pupils in the South were placed in special classes, in comparison with 3.5 percent in the Northeast and 3.2 percent in the West.

An educational problem articulated recently is the special need for language skills of persons from predominantly non-English speaking environments. Estimates made in 1975 show over 2 million persons from households which are non-English speaking attend institutions ranging from nursery school through college (table 3.18). Of this group, the largest portion, an estimated 1,685,000, speak Spanish as the usual household language (chart 3.18). Other European or Asian languages are spoken by over 200,000 students attending grades 1 through 12 (chart 3.19).

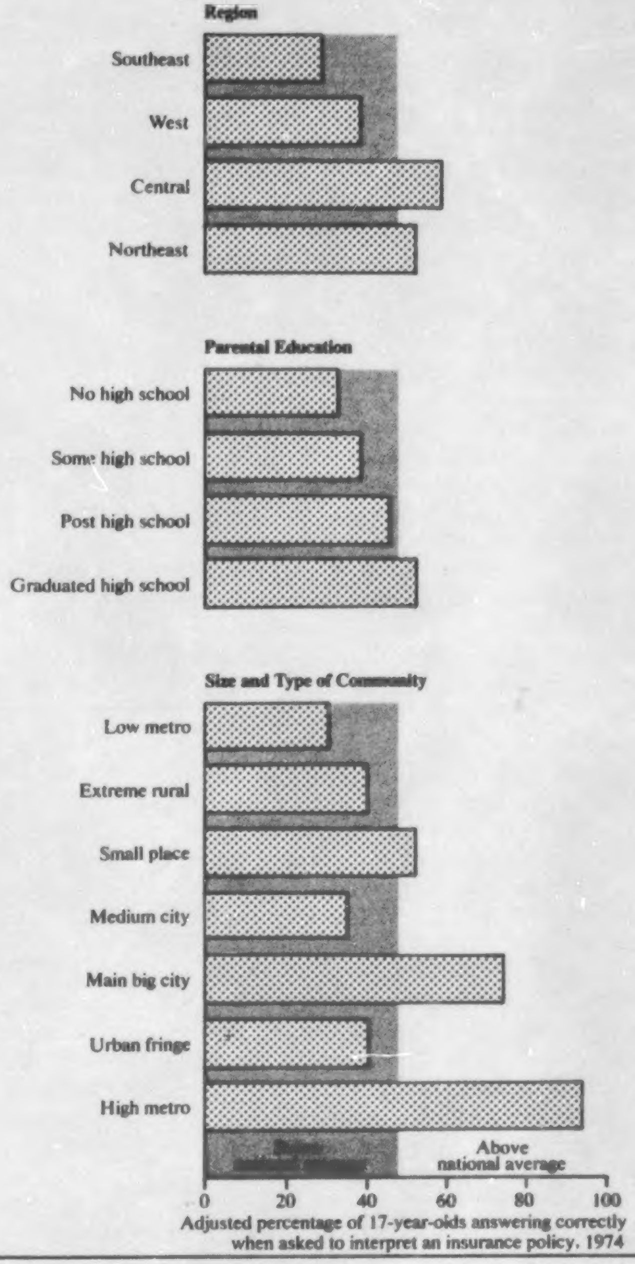
A portion of this group has received educational services through Federal programs. In 1972-73, 154,478 elementary and 39,305 students participated in a variety of programs (chart 3.20). Services received included instruction in reading (both in English and in other languages), cultural enrichment, and a variety of counseling and attendance services. Migrant children, who may have the same educational needs as the bilingual population in addition to needs related to brief tenure in a variety of educational settings, have received services of many sorts. More than half the 230,000 migrant children served in 1972-73 received instruction in reading and natural sciences, food and health services, audio visual materials, and services related to attendance/school social work (chart 3.21). This variety reflects an awareness of the relationships among school and other environmental factors.

Many 17-year-olds cannot accurately read an insurance policy.

See Table 3.9

Chart 3.9

Functional Literacy: Insurance Policy Interpretation

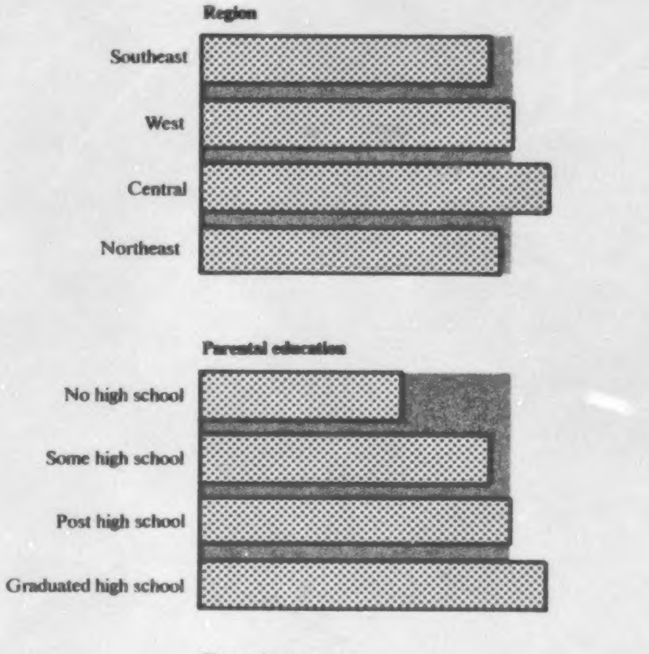


The ability to follow directions on a traffic ticket varies for respondents by size and type of community.

See Table 3.9

Chart 3.10

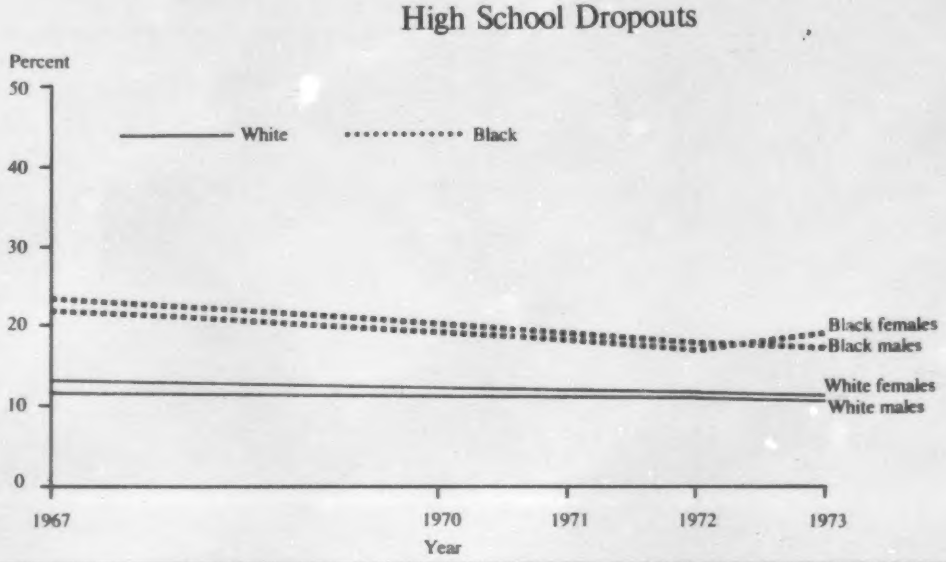
Functional Literacy: Traffic Ticket Directions



There have been only minor changes in the percent of high school dropouts since 1967.

See Table 3.11

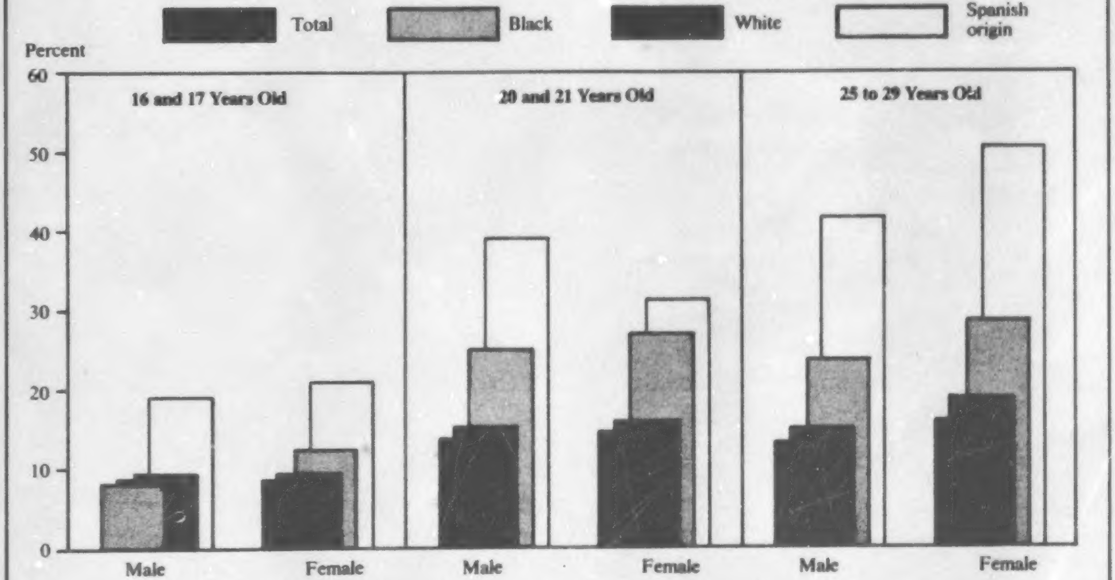
Chart 3.11



The high school dropout rates for persons collectively described as being of Spanish origin exceed those from other ethnic groups.

See Table 3.12

Chart 3.12 Persons Not in School and Not High School Graduates

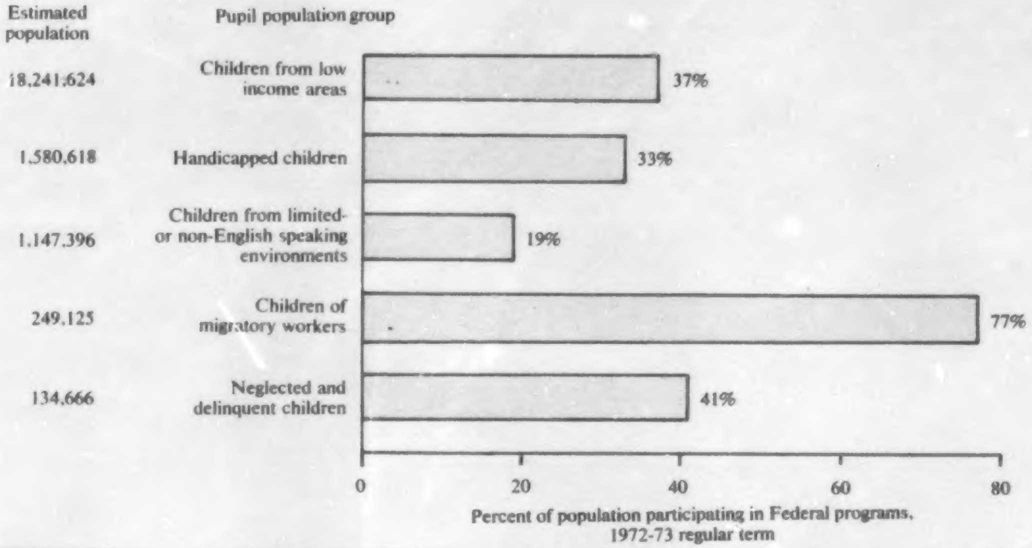


Of the estimated numbers of population subgroups with special educational needs, some have received services through Federal programs.

See Table 3.13

Chart 3.13

Children Participating in Federal Programs

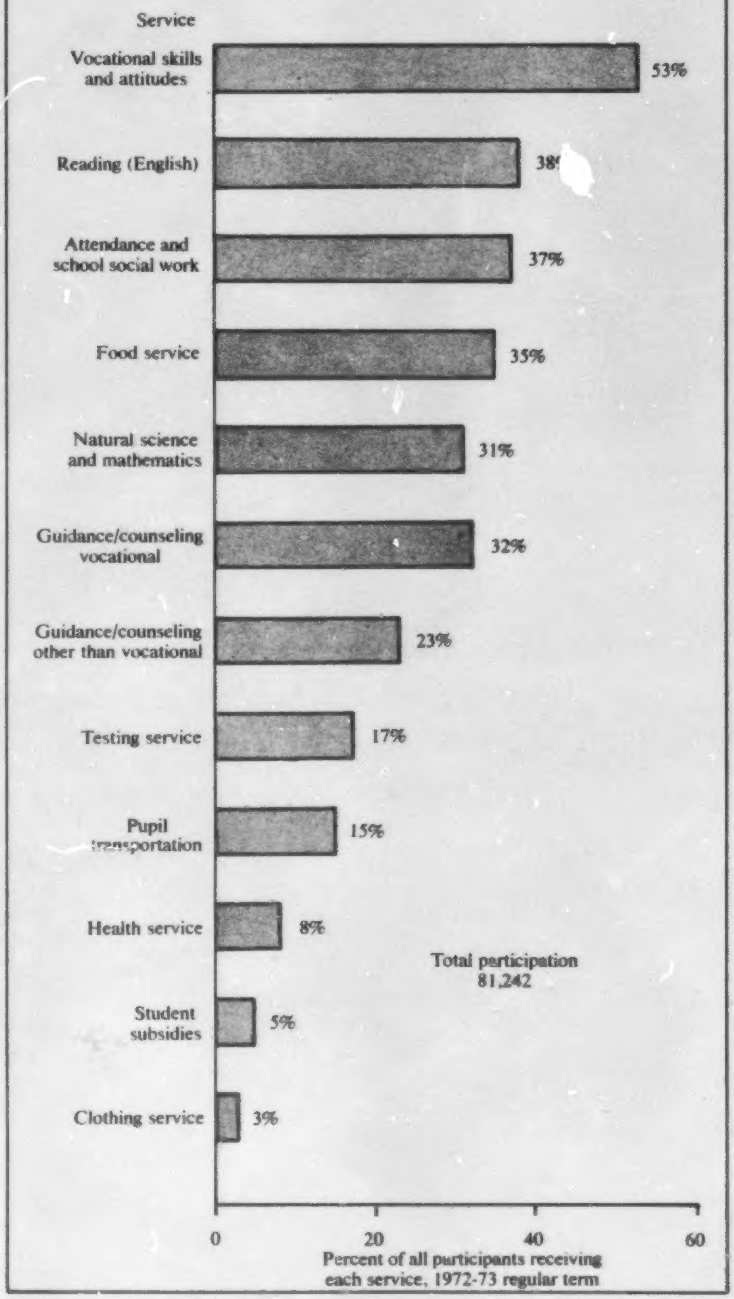


Services provided to reduce the problem of high school dropouts include counseling, academic assistance and personal services.

See Table 3.14

Chart 3.14

Federally Funded Services to Dropouts

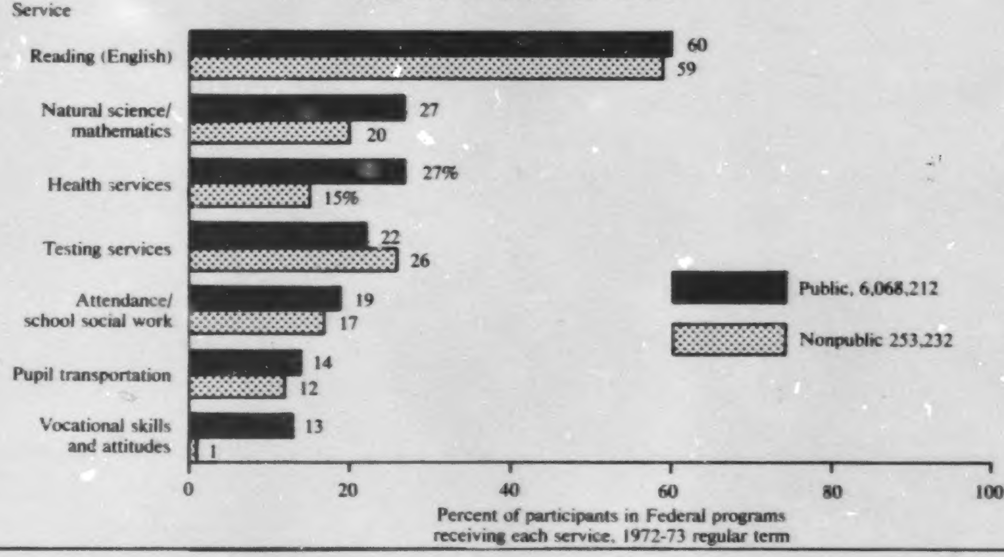


The distribution of services to students in low-income areas is similar for both public and nonpublic schools.

See Table 3.15

Chart 3.15

Federally Funded Services to Children From Low Income Areas

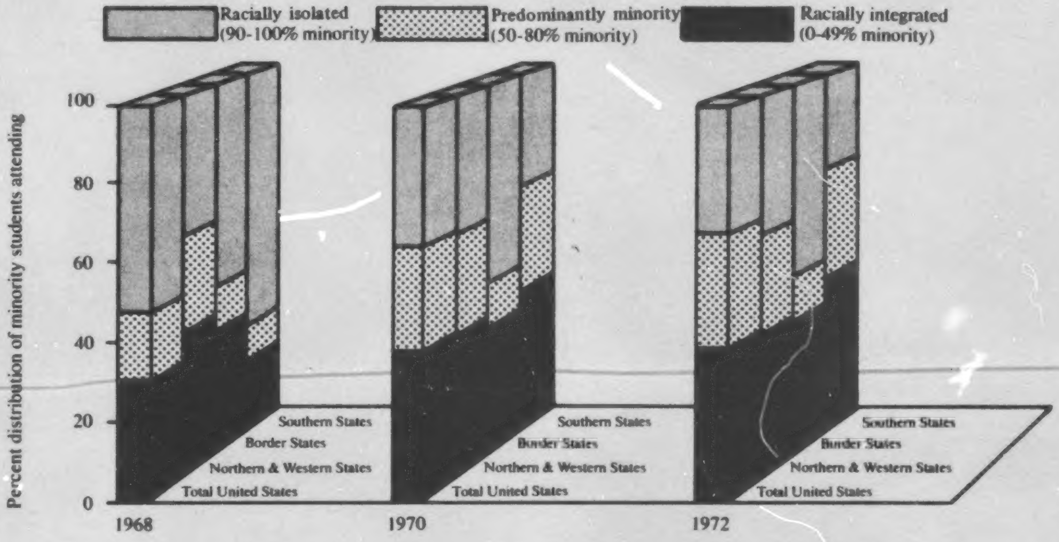


Considerable progress was made in integrating public schools between 1968 and 1972, particularly in Southern and border States.

See Table 3.16

Chart 3.16

Racial Composition of Schools



The proportion of students identified as having handicaps is larger in the South than in other regions.

See Table 3.17

Chart 3.17

Handicapped Students

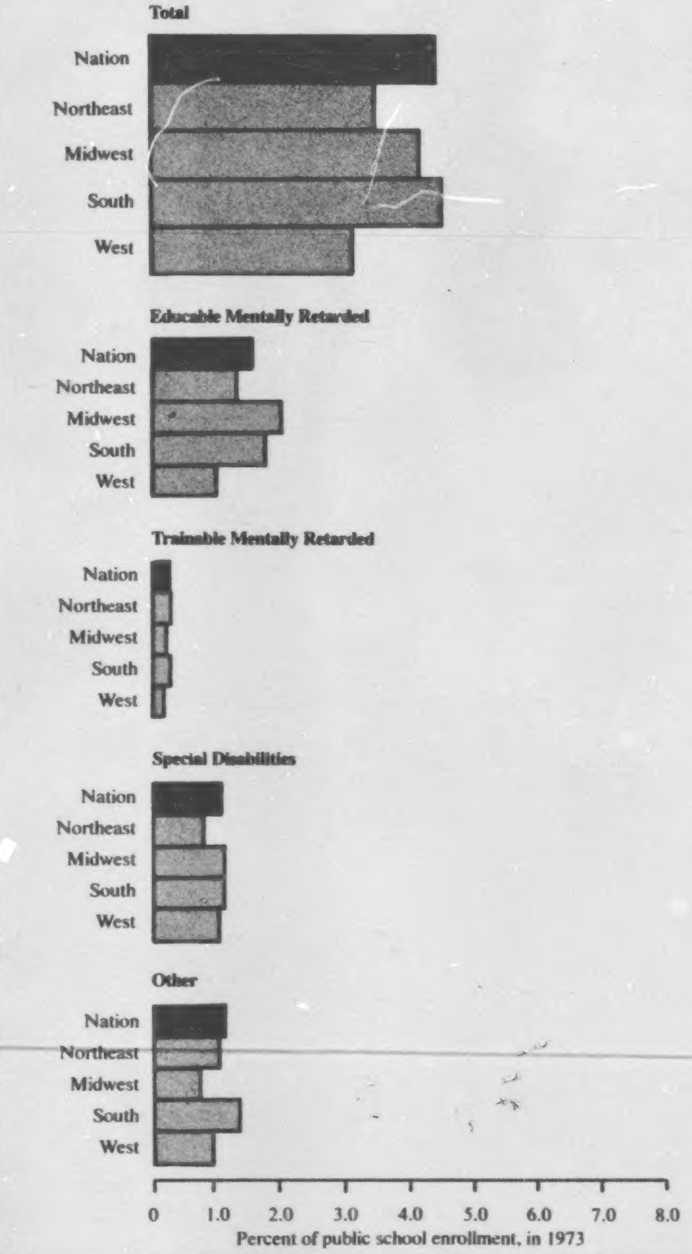
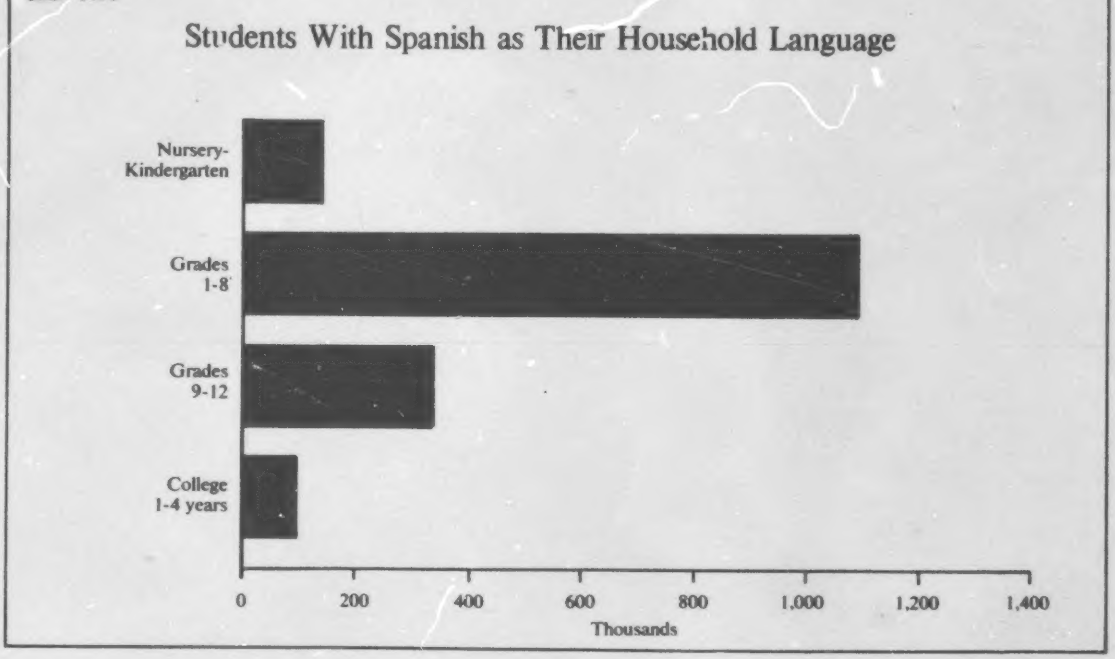


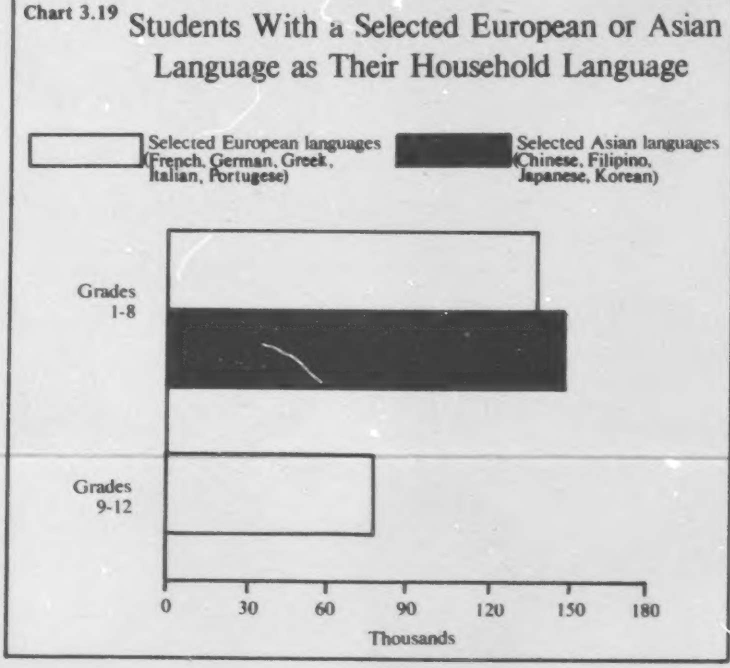
Chart 3.18



Over 1 million students in grades 1 through 8 are from homes with Spanish as the principal language.

See Table 3.18

Chart 3.19



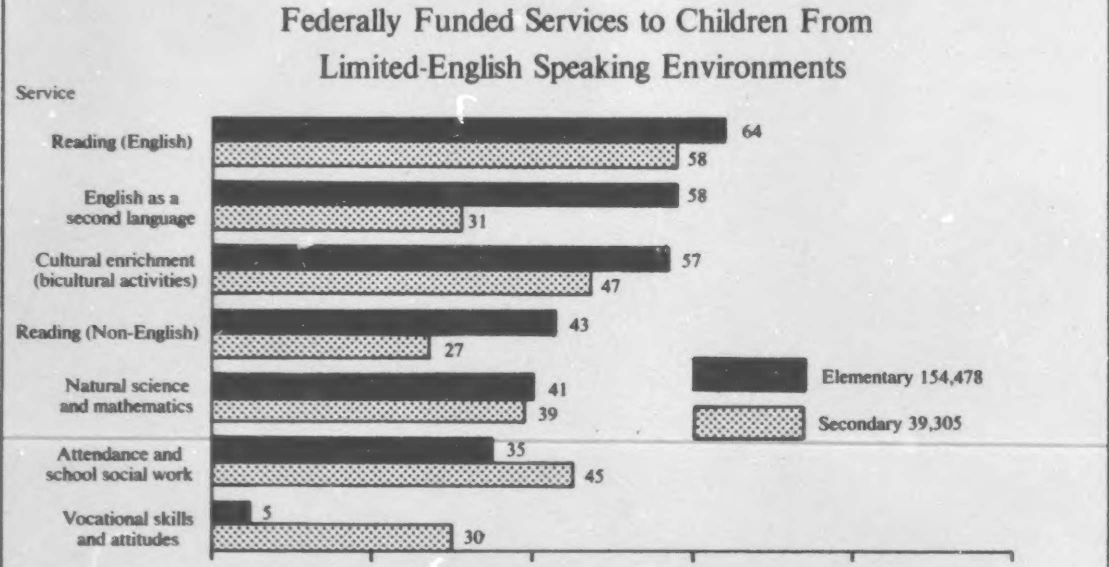
Over 300,000 students are from homes with other European or Asian household languages.

See Table 3.18

Federal services supplied to children from limited- or non-English speaking environments are concentrated on elementary pupils.

See Table 3.20

Chart 3.20

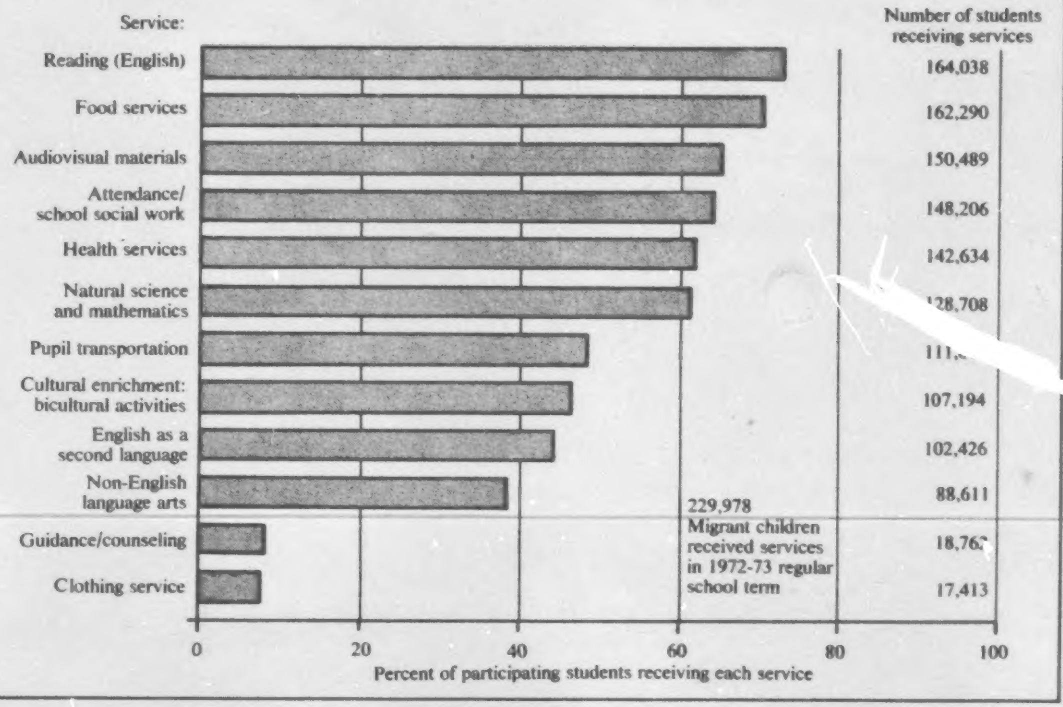


Federal services to migrant children include instruction, cultural enrichment, and personal services.

See Table 3.21

Chart 3.21

Migrant Children Receiving Services in Federally Aided Programs



II

Education:
A Closer Look
at Selected Topics

Chapter 4

Participation in Postsecondary Education

Participation in postsecondary education within the last 10 years has seen increasing diversity among students, especially in the ages at which they enroll and in the courses of study they choose. Chapter 2 documents the increasing numbers of persons completing programs and of degrees and other formal awards since the 1950's. This increase has been accompanied by a diversification that both adds complexity to any statistical examination of postsecondary trends and signals caution to anyone attempting to predict the future, as individuals select from the expanding range of educational opportunities available. In fact, several reputable, alternative projections of enrollments in postsecondary institutions have been made, in consonance with the recent dramatic, and sometimes erratic changes in many areas of postsecondary education, affected by demographic and short-term social and economic conditions.

The general term postsecondary education has been used to encompass higher education, vocational/technical education, and adult education. Although some students are enrolled in more than one area of postsecondary education, enrollment figures for some types of schools suggest the magnitude of postsecondary education activities. Postsecondary enrollment included 10.2 million higher education students in 1974-75; more than 13.7 million students in federally-aided vocational classes in 1974; and, an estimated 18 million adult education participants in 1975.

Since the early 1960's there have been concern and interest in providing traditional higher education experiences for many groups with low participation rates in the past. Participation of various minority groups has been the subject of considerable discussion and numerous special program efforts for several years, and it is now appropriate to ascertain whether such efforts have substantially altered the determinants of access to higher education. Here we shall examine both the diversification of postsecondary experiences and the prior issue of access to higher education.

Enrollment Patterns in Postsecondary Education

High school graduates constitute the largest pool of entrants into postsecondary education. During the first year following completion of high school a major decision–to continue school or not, and if so, what type of school to enter–must be made. For this reason plans of high school seniors–declared in many cases prior to their acceptance by particular institutions–are a revealing source of information about entry into postsecondary education. These intentions examined over time may suggest changes in student expectations and perceptions of the benefits of schooling. Data for the years 1972, 1973, and 1974 show small but distinct changes in articulated plans (chart 4.1). In the face of expanding enrollments in virtually all kinds of postsecondary education, it is surprising that progressively larger numbers of both males and females do not plan to attend any school. For males, the percentage not planning to attend has risen from 13.8 in 1972 to 19.6 in 1974; for females, from 15.4 to 18.8. Of those planing to attend, the patterns vary for males and females. Holding almost constant, the percentage of females planning to attend college was 46.3 in 1972 and 46.2 in 1974; those stating that they may attend accounted for 24.3 percent in 1972 and 25.4 percent in 1974. The patterns for males departed from those for females in several ways. The percentage planning to attend college declined, from 46.1 percent in 1972 to 40.9 percent in 1974. A similar decline was registered by those who said they might attend college, while a larger percentage in 1974 expressed an intention to enroll in vocational school than in 1972.

Family income clearly enters into the choice of postsecondary education. While 53.5 percent of high school seniors in 1974 coming from families with incomes of $25,000 and over planned to go to a 4-year college, only 12.4 percent of those from families with incomes under $5,000 had similar plans. There was less pronounced variation among students from different family income groups in planning to attend first a 2-year and then a 4-year college, or to attend a 2-year college only. Greater proportions of students from low-income families planned to attend vocational school; 15.9 percent of the students from families with incomes under $5,000 said they planned to or might attend vocational school. Only 4.1 percent of students from families with incomes of $25,000 and over had plans to attend vocational schools.

Many other factors are related to participation in postsecondary education. In addition to family income, differential experiences of subgroups identified on the basis of sex, race, and ability, suggest that each of these factors may influence access and participation. Entrance into postsecondary institutions by the high school class of 1972 was generally related to family income level, with students from high-income families entering at higher rates than those from low-income families (chart 4.3). Among White students, patterns of entrance were similar for males and females, with larger proportions of students entering post-secondary institutions at successively higher income levels. Females did enter institutions at slightly higher proportions in each income category than males. Patterns of entrance among Black students did not display this relationship; entrance rates for Black females did not change in a consistent way as incomes increased, and for Black males entrance varied so much that there was no consistent relationship between entrance into postsecondary education and income level.

There have been interesting changes in the proportion of students from groups defined by socioeconomic status (SES) entering 4-year institutions of higher education. Data for 1960 and 1972 indicate declining entrance rates for several subgroups at the extremes of ability and SES scales (chart 4.4). In 1960, among males of high ability and low SES, 48 percent entered 4-year institutions, while in 1972 only 36 percent enrolled. Of males with high ability and high SES, 87 percent entered in 1960 compared with 73 percent in 1972. This decline evident also among females of high ability and high SES, going from 82 percent in 1960 to 76 percent in 1972. However, among females of high ability and low SES, the percent entering 4-year institutions increased from 34 percent in 1960 to 43 percent in 1972.

It is of considerable interest whether students who enter post-secondary education remain until they complete a program or receive a degree. In addition, there has been speculation on the mobility of students among types of institutions; for example, what is the likelihood that students who initially choose a vocational school will enter a 4-year college. Enrollment patterns of the high school class of 1972 provide some insights. It is assumed that students from wealthier families would be expected to have the widest range of choices available to them; therefore, the enrollments in 1973 of students from families with incomes over $18,000 are of interest. Continuation rates, as expressed by 1973 enrollment, were highest for those who entered 4-year institutions, and lowest for those who entered vocational or technical schools (chart 4.5). Over 85 percent of those in 4-year institutions in 1972 continued such attendance in 1973. For 2-year colleges, the figure was 57.1 percent; for vocational/technical schools, 36.1 percent. Of those who did not enter school in 1972 but did enroll in 1973, the highest percentage, 7.9, chose 4-year institutions. Two-year institutions were elected by 7.8 percent, and 4.9 chose vocational/technical schools. Only a few (3.5 percent) left vocational/technical schools for 4-year institutions.

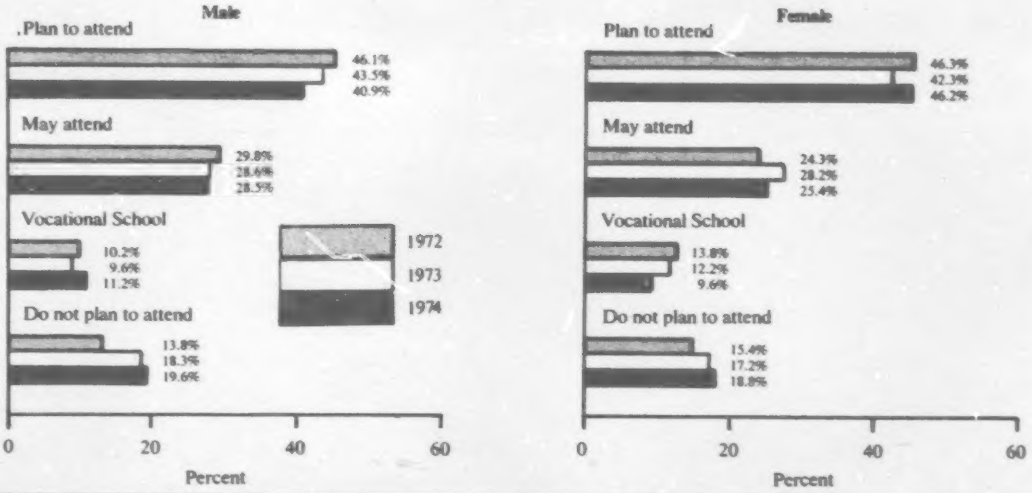
A comparison of these continuation figures with those of students from families with incomes under $3,000 shows lower continuation rates in 4-year and vocational schools among low-income students, but higher rates in 2-year schools. Of the students who entered school in 1973 after remaining out of school for 1 year, 2.9 percent entered 4-year colleges, 2.4 percent entered 2-year colleges, and 3.5 percent entered vocational and technical schools. Thus, at least for the brief period of 1 1/2 years following high school graduation, "migration patterns" among types of schools rarely involve more than 10 percent of students at a particular type of institutions. Furthermore, rates of this magnitude occur only among those from high-income families.

The number of high school seniors not planning to attend college has increased slightly since 1972.

See Table 4.1

Chart 4.1

Educational Plans of High School Seniors

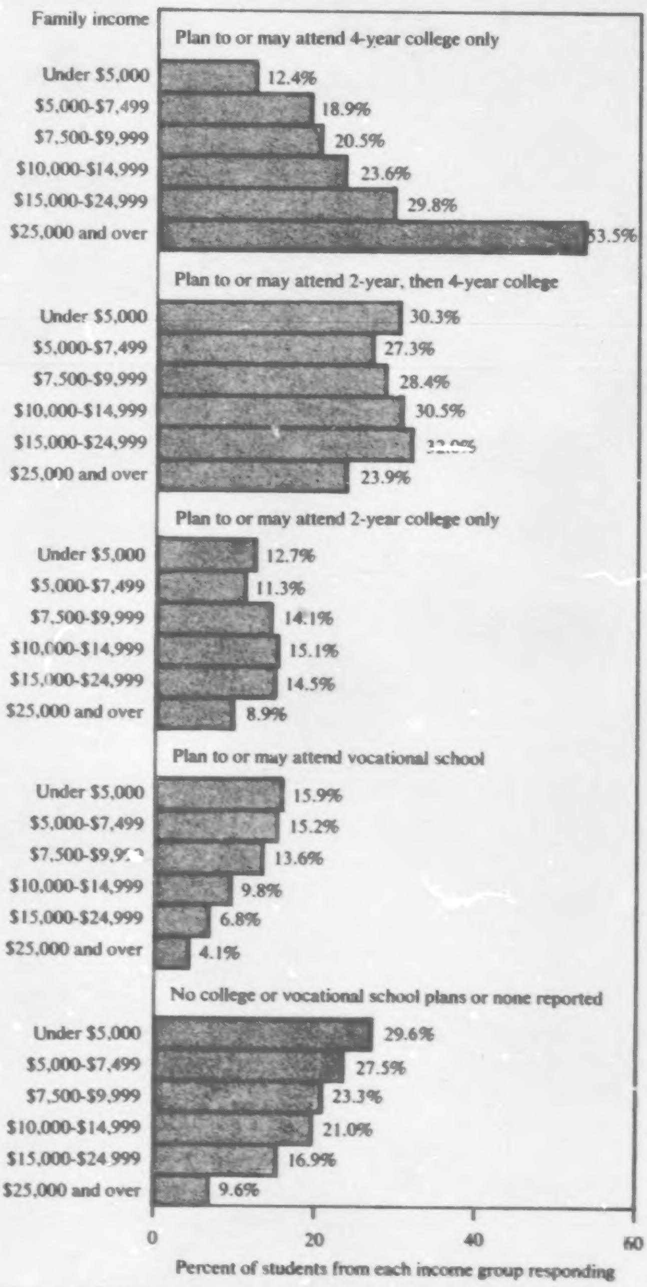


Educational plans of high school seniors are closely related to family income level.

See Table 4.2

Chart 4.2

College Plans of High School Seniors



Students from high-income families entered postsecondary education at higher rates. See Table 4.3

Chart 4.3

Participation of the High School Class of 1972 in Postsecondary Education

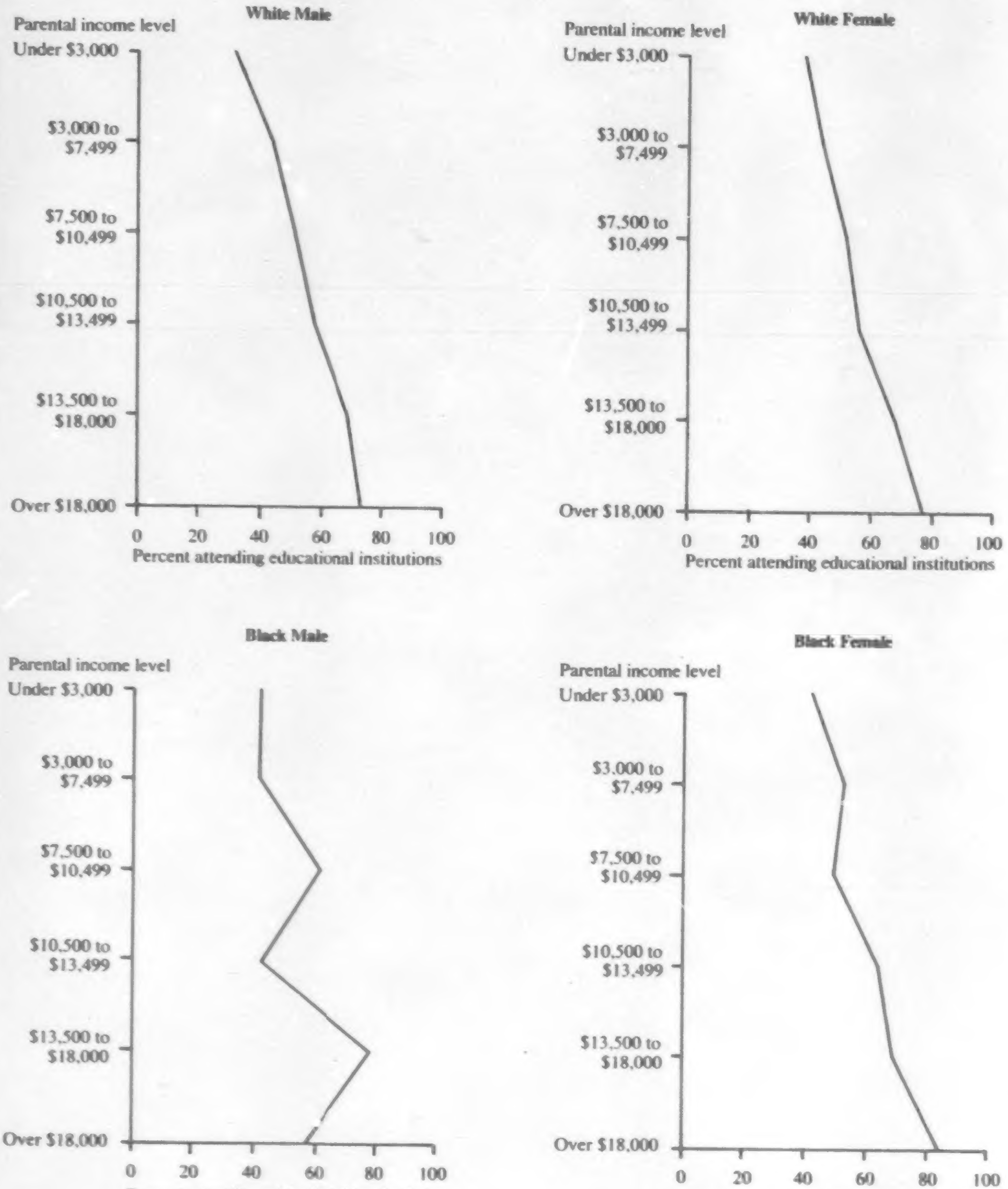


Chart 4.4

Changes in Entrance Into Higher Education

Entrance into 4-year colleges
was lower in 1972 than in
1960 for males of high ability.

See Table 4.4

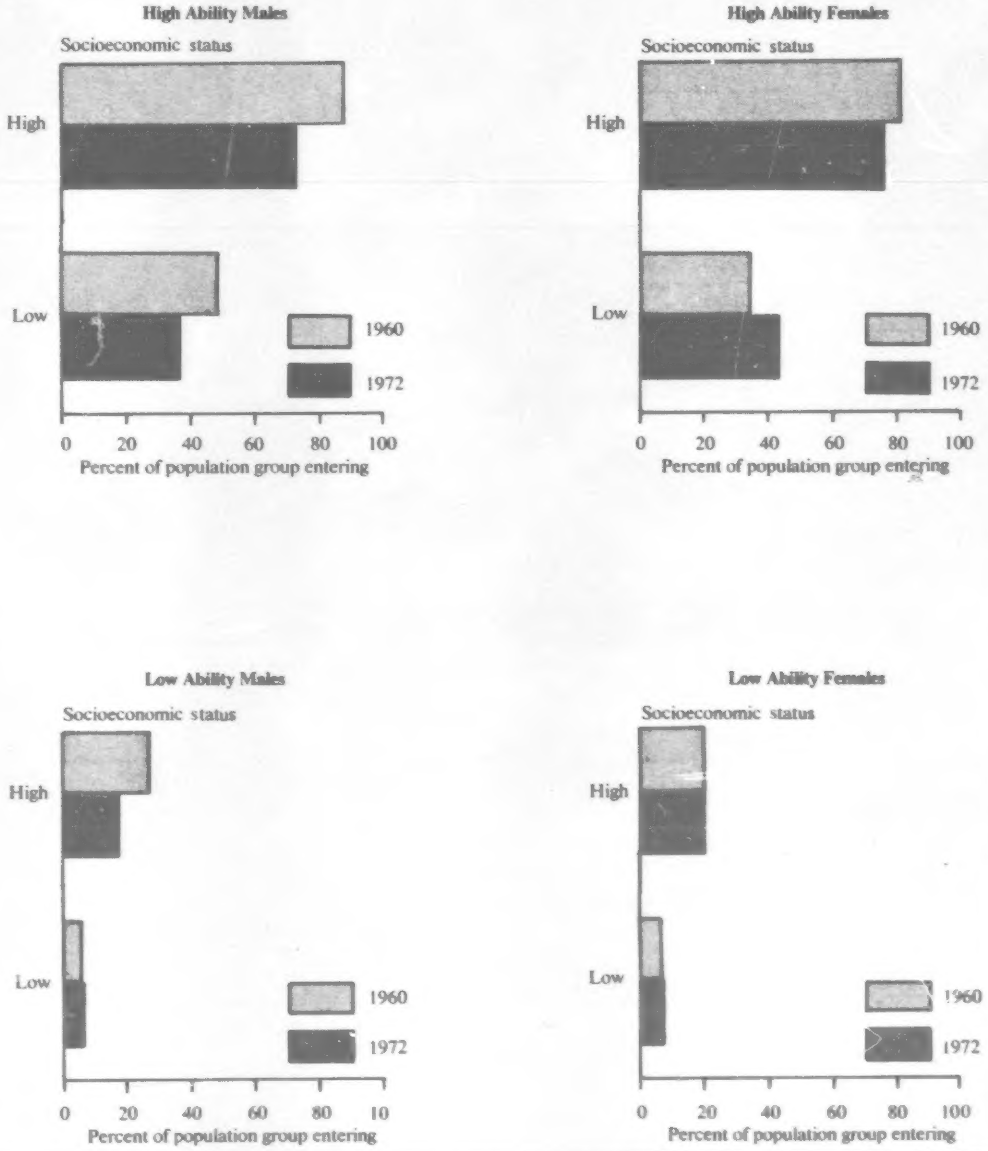


Chart 4.5

Of the individuals from high income families who entered postsecondary education in 1972, continuation in educational activities was highest, 85 percent, for those in 4-year colleges.

See Table 4.5

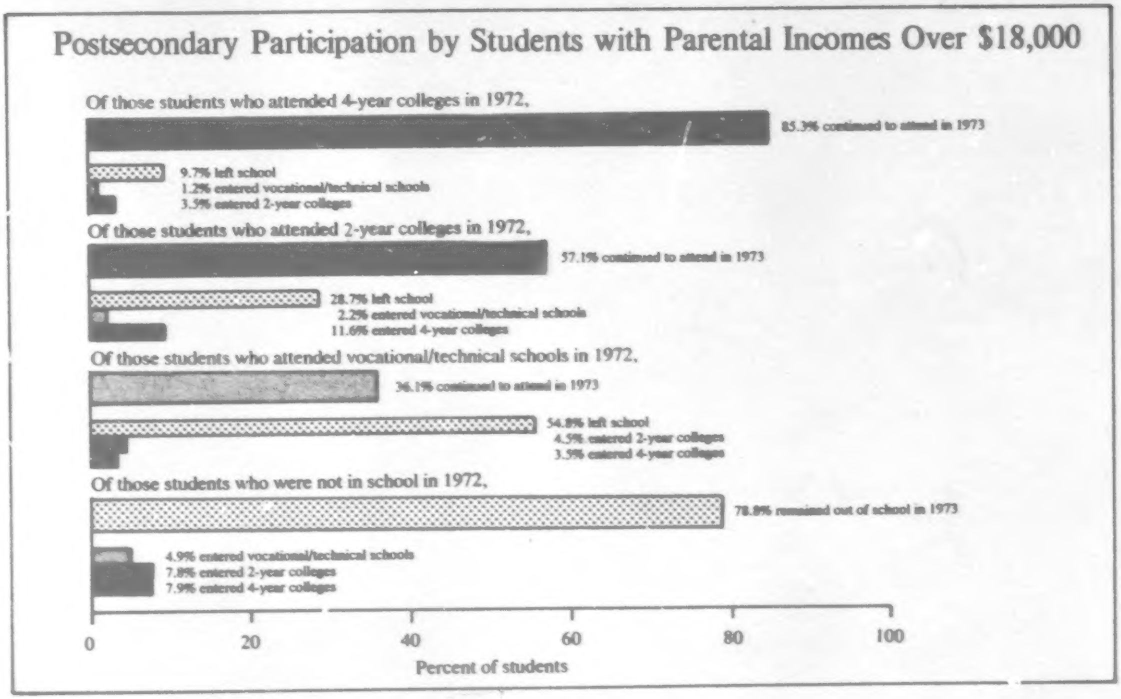
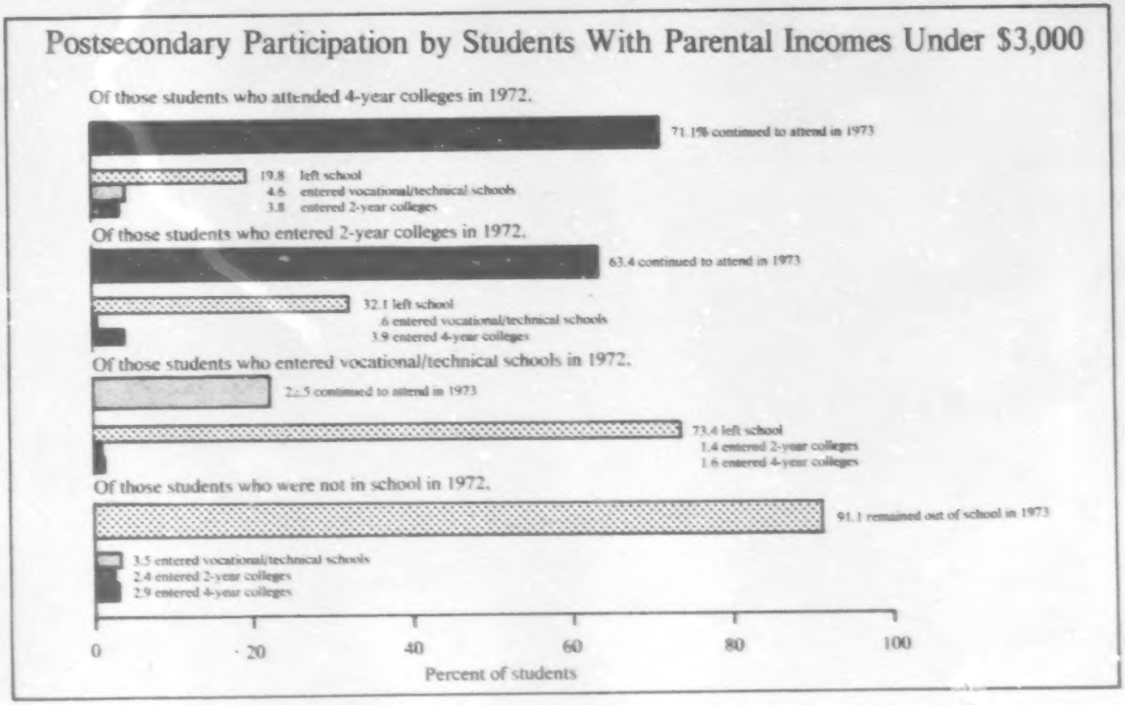


Chart 4.6

For those individuals from low-income families, 71 percent who entered 4-year schools in 1972 continued to attend in 1973.

See Table 4.5



Vocational Education

Vocational education is offered by many types of institutions, both within and outside the traditional educational establishment. Public secondary and postsecondary schools and public and private colleges and universities provide numerous opportunities for instruction, as well as educational services in support of specific career objectives. Private noncollegiate schools which offer specialized programs are also viewed as an important part of the range of postsecondary opportunities. In recent years, the number of noncollegiate vocational schools has decreased, as community colleges and area schools offer expanded vocational training opportunities. In general, accessibility of vocational training is influenced–at least in the short run–by proximity of schools, entrance requirements, costs and enrollment capacity.

Noncollegiate postsecondary career schools displayed a variety of admission requirements in 1973 (chart 4.7). Most schools observed a minimum age requirement, with the lowest percent (45.6) levied by business schools and the highest (93.9) by cosmetology and barber schools. High school diplomas were not universally required; percentage of schools requiring a diploma or its equivalent ranged from a low of 4.5 for flight schools to 97.3 for schools offering training for hospital careers. Entrance examinations were given by many, but not by all schools in each category; 71.2 percent of technical institutes required them compared with only 54.3 percent of trade schools.

Enrollments in public postsecondary area vocational schools showed the extent of participation by minority groups and the distribution among fields by sex. Blacks accounted for 11.2 percent of enrollment in 1974, Hispanics for 4.1, Asian-Americans for 1.1 percent, and American Indians for 1.0 percent (chart 4.8). Enrollments by sex were markedly different by field, suggesting limited "cross-overs" to fields traditionally dominated by one sex (chart 4.9). Enrollments were predominantly female in stenography (93.7 percent), nursing (91.7 percent), filing (86.5 percent), and home economics (86.4 percent). In contrast, female enrollments were low in electronic technology (2.0 percent), auto mechanics (1.3 percent), welding (1.3 percent), and construction trades (0.9 percent).

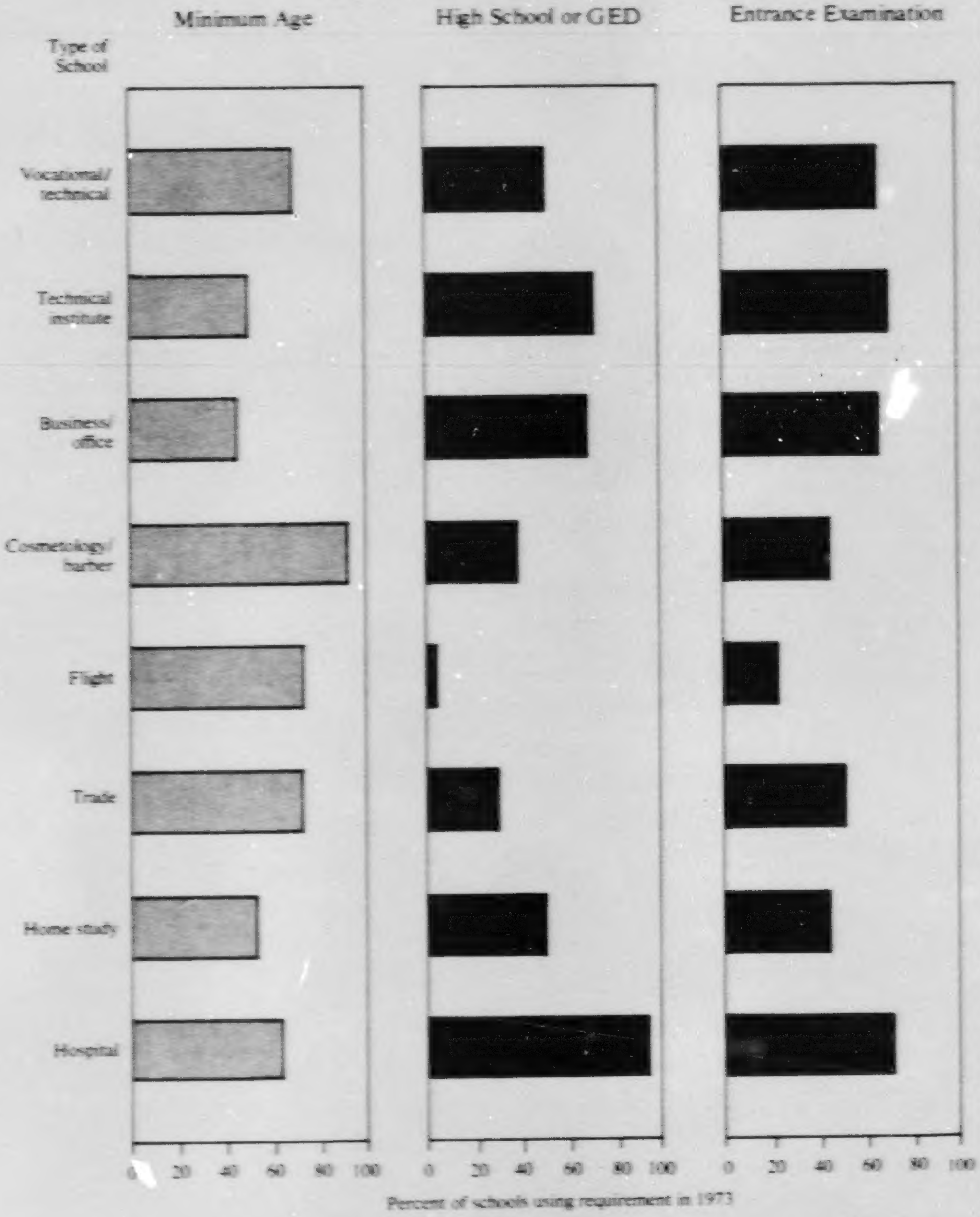
The most popular selections by students in 1973-74 were cosmetology and barber programs, with 182,800 students; auto mechanics, 165,100 students; and secretarial, 123,300 (chart 4.10). These enrollments were distributed unevenly among schools; over 2,300 schools offered programs in cosmetology or barbering, while 902 offered auto mechanic programs, and 1,246 offered secretarial programs (table 4.10).

Average total charges for vocational programs in 1973 were considerably greater in private than in public schools: $299 in public schools compared with $1,387 in private schools (table 4.11). Charges for private schools also varied by type of school, with $1,476 the average total cost for private vocational and technical schools, and $2,590 for private flight schools (chart 4.11). In contrast, the highest average charge in public schools was $456 for programs in technical institutes.

Admission requirements vary considerably for different types of noncollegiate postsecondary schools. See Table 4.7

Chart 4.7

Admission Requirements Utilized by Noncollegiate Postsecondary Vocational Schools

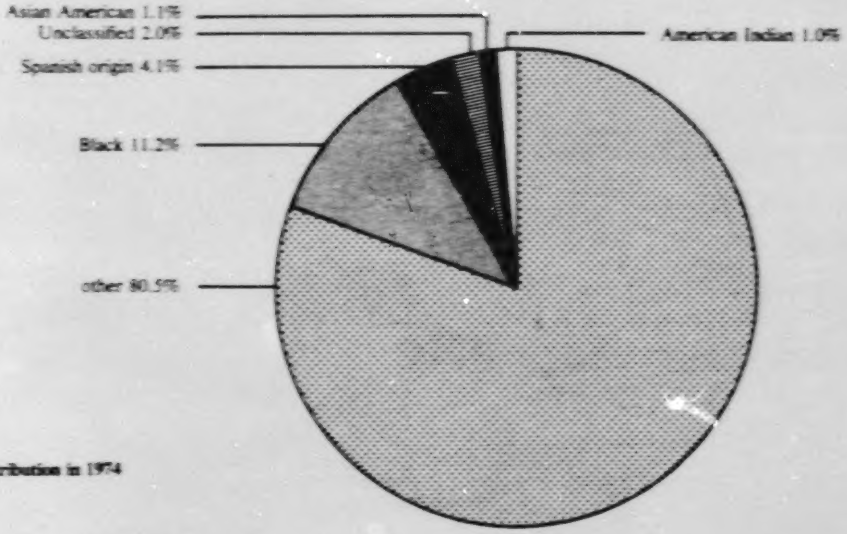


Minorities constitute 17.4 percent of the enrollment in postsecondary area vocational schools.

See Table 4.8

Chart 4.8

Ethnic Composition of Vocational School Enrollment



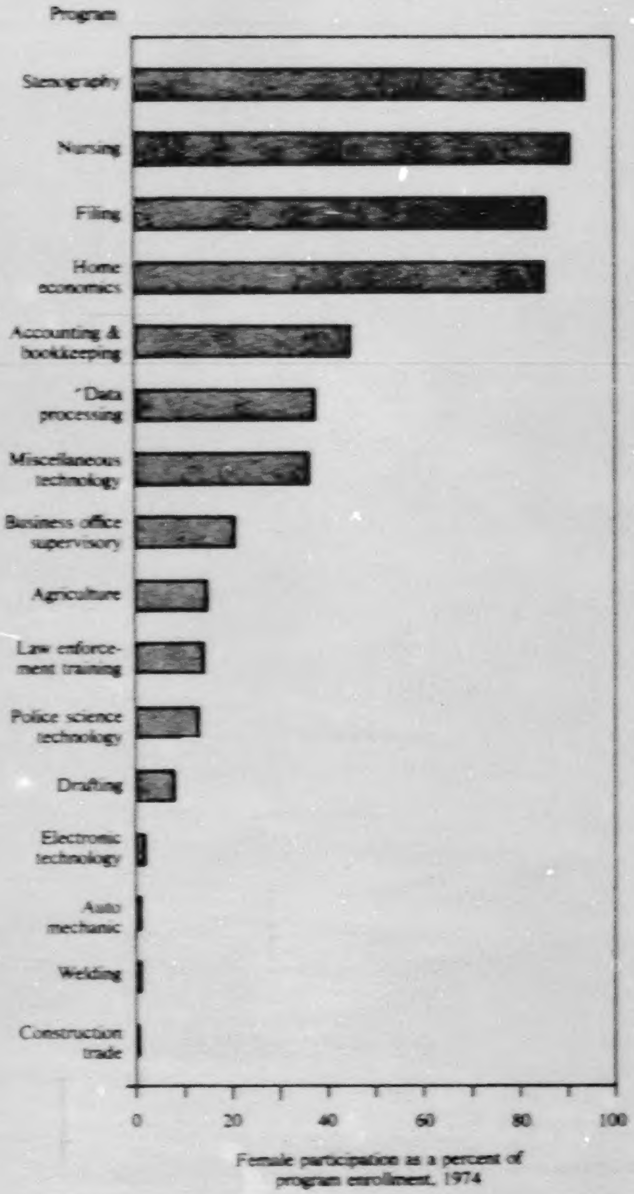
Percent Distribution in 1974

Female participation in occupational programs is highest in stenography, nursing, filing, and home economics.

See Table 4.9

Chart 4.9

Female Participation in Vocational Programs

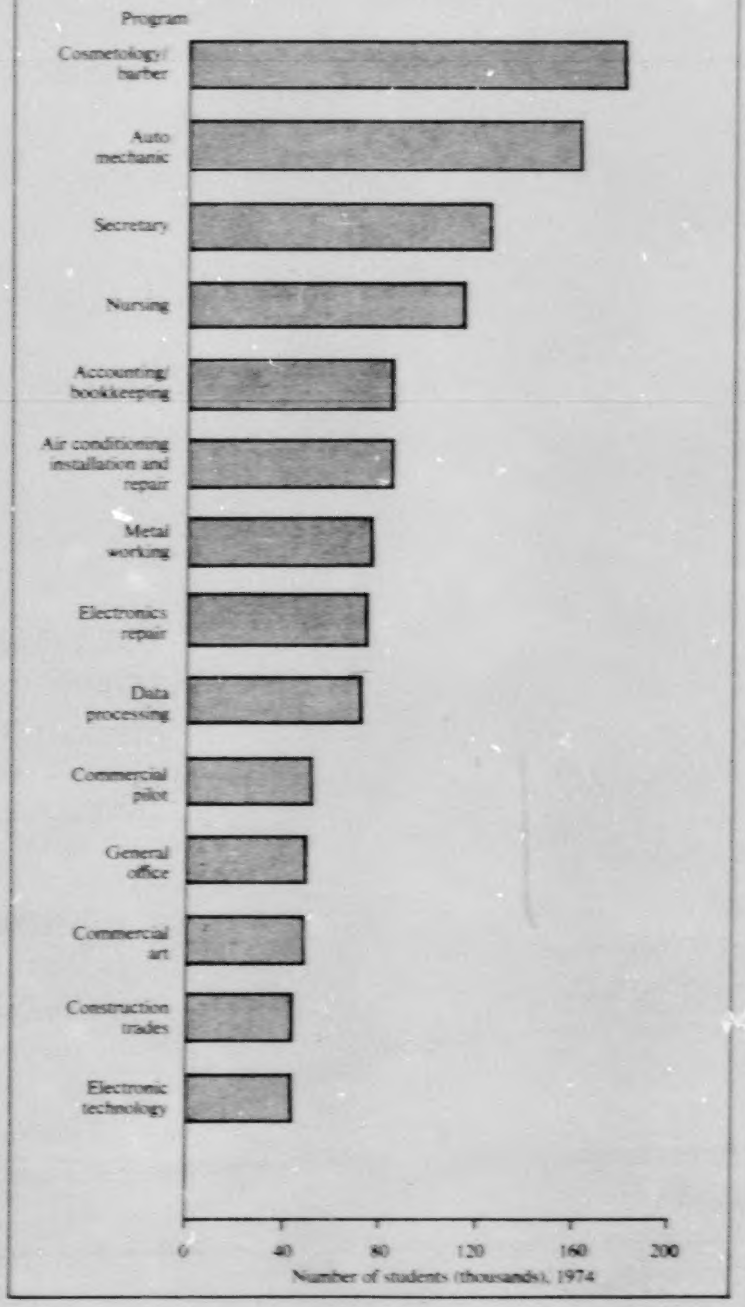


The most popular programs offered by noncollegiate schools are cosmetology and barbering, auto mechanics and secretarial.

See Table 4.10

Chart 4.10

Enrollment in Vocational Programs

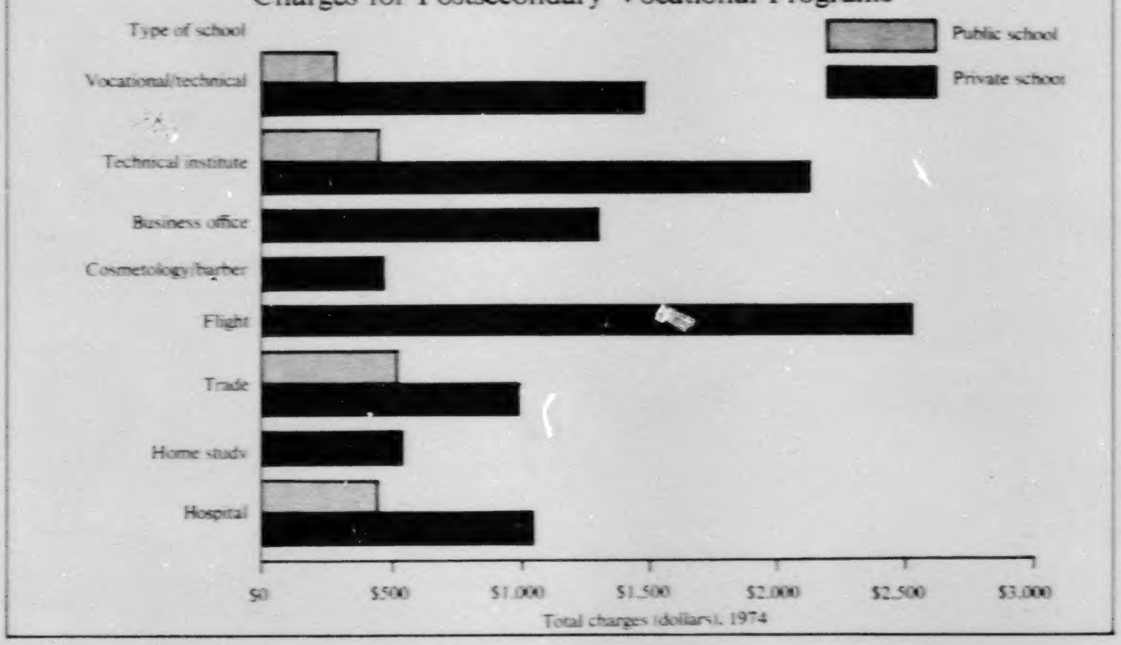


Total charges for courses of study in private vocational schools greatly exceed those for public schools.

See Table 4.11

Chart 4.11

Charges for Postsecondary Vocational Programs



Higher Education

In the 1960's, discussions of equal educational opportunity and access to higher education were directed towards the traditional higher education sector of the educational system—the colleges and universities that grant baccalaureate and higher degrees. While considerable scholarly debate now centers on reevaluating college education on the basis of expected economic returns, the tremendous increase in degrees granted in the 1960's has probably enhanced rather than lessened the importance of a degree in gaining access to certain occupations.

Chapter 1 cited the tremendous expansion in higher education, particularly among public institutions. Total enrollment increased from 3,789,000 in 1960 to an estimated 10,619,000 in fall 1975 (chart 4.12); increases are expected to continue, though at a slower rate than in the past, reaching a peak of 11,957,000 in 1982. Enrollments for degree credit have grown faster for 2-year than for 4-year institutions, though 4-year schools still dominate in absolute numbers. Degree-credit enrollment in 2-year institutions rose from 451,000 in 1960 to 2,335,000 in 1975, a more than five-fold increase. For the same period, degree-credit enrollments in 4-year institutions rose from 3,131,000 to 6,993,000, somewhat more than a two-fold increase.

Several factors apparently contribute to entrance into, and completion of, higher education. Sex, age, race, income, and distance from school will all be reviewed in this chapter, where data permit, in relation to entrance and completion.

First-time degree-credit enrollment in institutions of higher education in fall 1974 was 60.4 percent of the number of high school graduates in spring 1974 (chart 4.13). This figure has increased since 1958, when it was 51.3 percent, but has not changed substantially since 1968. This enrollment has increased for females more rapidly than for males, changing from 39.5 in 1958 to 56.6 in 1974, while males rose from 51.3 to 60.4 percent of high school graduates.

Age distribution of college students is changing, with older students making up a progressively larger proportion of the students. In 1974, students 35 years old and over constituted 10.4 percent of the students (chart 4.14). While figures on enrollments of this age group are not available for years prior to 1973, the group may merit observation in the future, especially in view of the trend toward an older student population. The proportional decreases among younger age groups are particularly noticeable among 18- and 19-year-olds. In 1955, this group made up 31.3 percent of enrollment. This age group contained an increasingly large proportion of the total number of college students until 1965, when it accounted for 39.0 percent of all students. The number then dropped, and in 1974 was only 26.4 percent of college students.

Age distributions for students differ also for types of higher education institutions. Students attending 4-year colleges are generally younger than those attending 2-year colleges (chart 4.15). In 1974, 29.3 percent of the students at 2-year colleges were 25 to 34 years old; only 13.0 percent of students at 4-year colleges were in this age group (table 4.15). Female enrollments differ more for types of colleges than do male enrollments. The enrollments of females at 2-year colleges contain larger proportions of both the younger age group (14 to 19 years) and the older age group (25 to 34 years) than those at 4-year colleges.

There have been large increases in minority students attending higher education institutions, with the numbers from each minority group, including American Indians, Blacks, Orientals, and those of Spanish origin, more than doubling between 1968 and 1972 (table 4.16). However, as a percent of the total enrollment in higher education the increases have been small. For American Indians, percentages have risen from 0.5 to 0.6; for Blacks, from 7.1 to 8.4; for Orientals, from 0.7 to 1.0; and for those of Spanish origin, from 1.7 to 2.4.

Enrollments in higher education by sex and race suggest attrition patterns that are distinct for these population subgroups. Taking the freshman enrollments in fall 1971 as the base figures, enrollments of the sophomore, junior, and senior students in subsequent years offered the basis for revealing comparisons. For all students, the number of seniors in 1974 was 55.8 percent of the number of freshmen in 1971 (chart 4.17). White males had the highest percent of enrollments at the senior year, with enrollments equalling 61.3 percent of that identified in the freshman year. However, only 34.7 percent of Black females as freshmen in 1971 were enrolled as seniors in 1974. These figures are not based on a longitudinal survey, but rather represent an annual survey of each college class and hence are subject to sampling variability. While the figures should be treated with caution, they do suggest greater attrition for minority groups than for Whites.

Students in public institutions have been required to assume percentage increases of cost rises in higher education about equal to those of students in private institutions. Whereas tuition and required fees in private institutions went up by an estimated 135.1 percent between 1964-65 and 1975-76 (from $1,088 to $2,558 in current dollars), these fees in public institutions rose by about 129.6 percent (from $243 to $558) (chart 4.18). Total outlay (fees, board, and room) in a private institution amounted to an estimated $3,981 in 1975-76; the corresponding figure for public institutions was estimated at $1,882 (table 4.18).

Parental income remains a contributing factor in first-time enrollment in higher education. Since 1966, the percent of first-time students from families with income estimated at $25,000 or more rose from 7.1 to 18.2 in 1974 (chart 4.19). Part of this increase is due, of course, to inflation and resultant higher incomes for much of the population. However, it is of special interest that the percent of students from families with incomes of less than $4,000 stayed almost constant since 1966, decreasing slightly from 6.6 to 6.0 percent. In the face of inflation, this figure suggests some progress for low-income students towards access to higher education. However, the proportion of students from families with incomes from $4,000 to $9,999 has dropped from 47.1 percent in 1966 to 18.3 percent in 1974.

Percentage distributions of first-time students on the basis of parental income also reveal differences by type of institution. In fall 1974, only 3.2 percent of university students were from families with parental income of less than $4,000, whereas 25.1 percent estimated parental income at $25,000 or more (chart 4.20). These figures represent a drop in the proportion of university students from low-income families (incomes less than $4,000) from the 4.6 percent of 1966. The distribution for 2-year schools shows a smaller proportion of students from families with incomes of $25,000 or more and a larger proportion from families with incomes of $4,000 or less. The figures for 1974 show 7.8 percent from low-income families and 12.4 percent from high-income families.

Of those students entering college, the choice of institution by family income follows more regular patterns for White males and females than for Blacks (chart 4.21). If one compares the entrance into private 4-year colleges and public 2-year colleges among Whites, there are only minor exceptions to the general pattern of an increasing percentage choosing private 4-year colleges and decreasing percentage choosing 2-year colleges as family income rises. Among Black students, no definable patterns emerge in comparing enrollments in private 4-year as opposed to public 2-year schools.

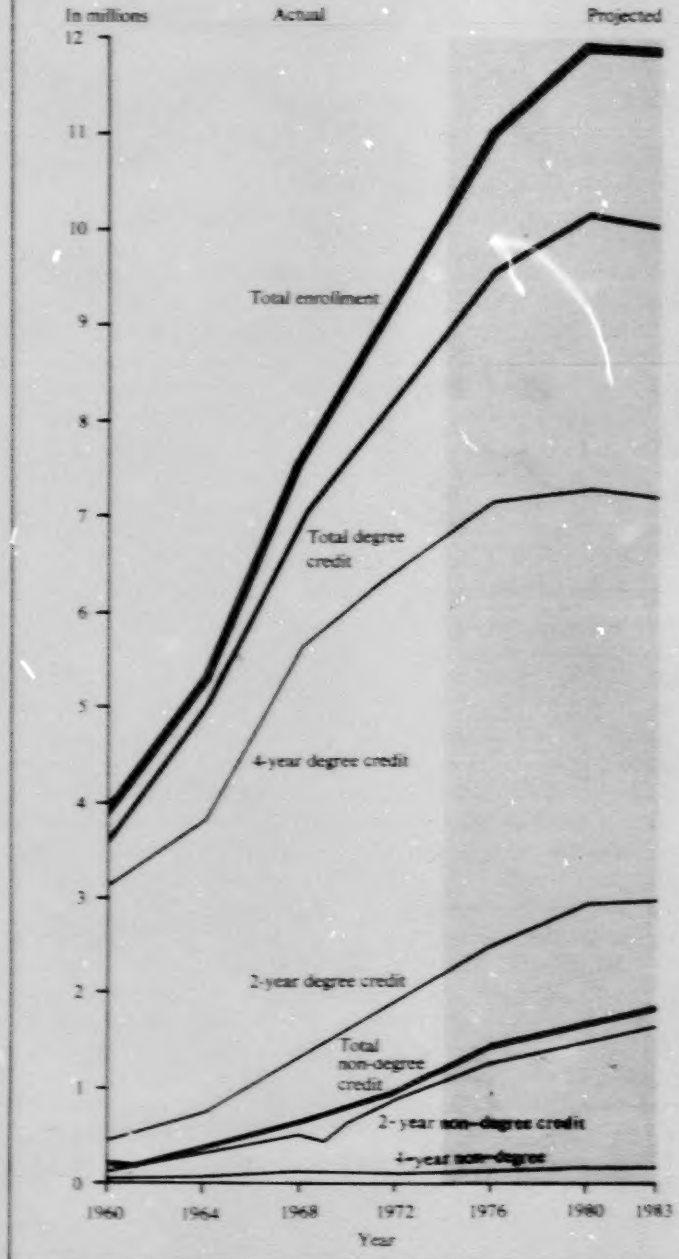
Patterns of enrollment in types of institutions of higher education show marked differences in the distances from students' homes to school. Students entering 2-year colleges are more likely to choose schools close to their homes than are university students. In 1973, 48.5 percent of students entering 2-year colleges lived less than 10 miles from the institution as compared with 11.8 percent of students entering universities (chart 4.22). In contrast, the majority (61.5 percent) of students entering universities were more than 100 miles from home as compared with only 11.7 percent of those entering 2-year colleges.

The rapid growth in total enrollment in higher education is expected to level off in the 1980's.

See Table 4.12

Chart 4.12

Degree-Credit Enrollment in Higher Education

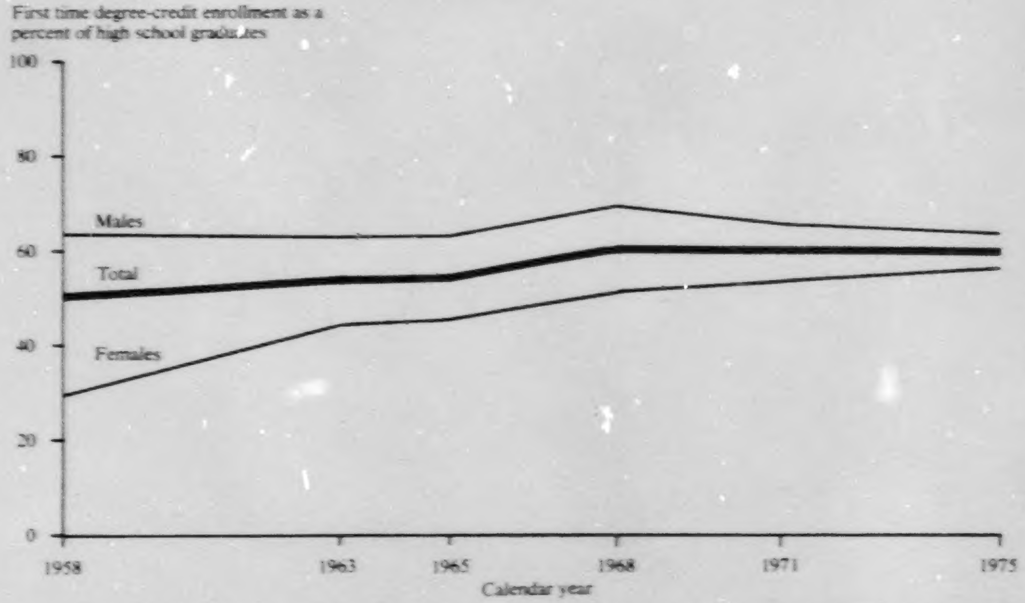


Consistently more male than female high school graduates enroll in higher education.

See Table 4.13

Chart 4.13

College Entrance Ratios

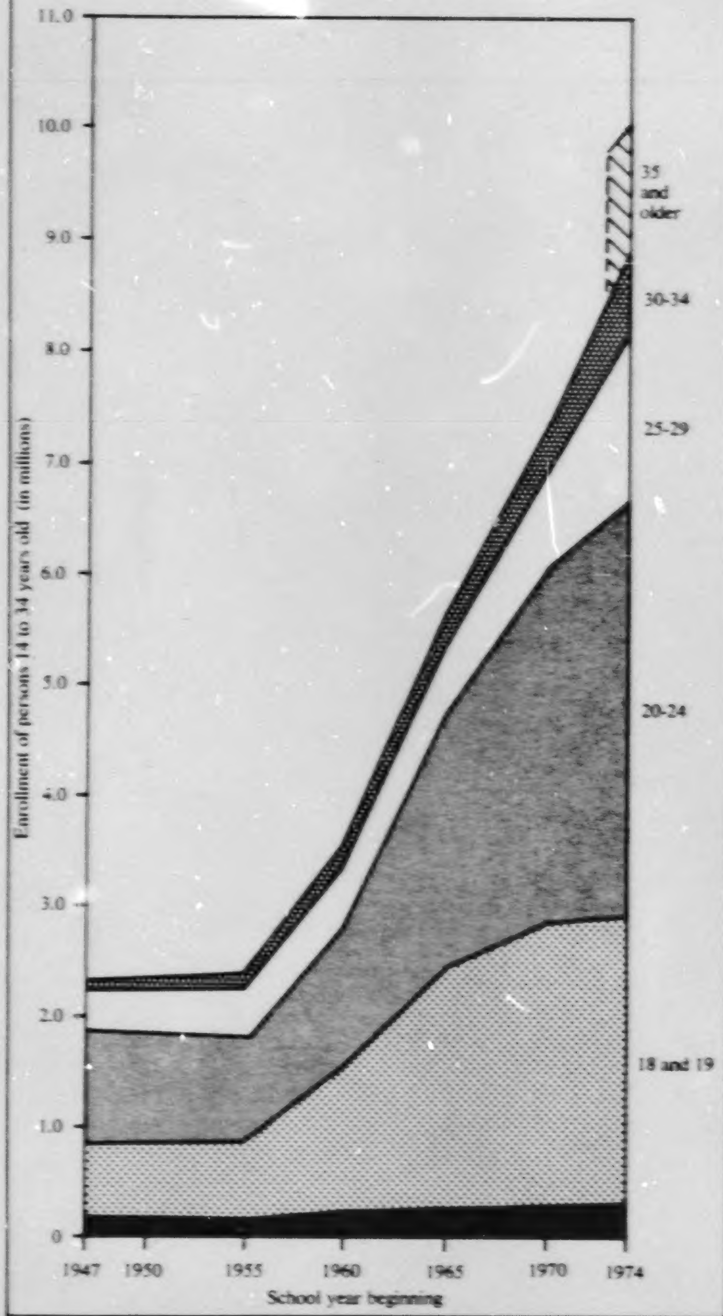


Increasingly larger proportions of college students are coming from older age groups.

See Table 4.14

Chart 4.14

Age of College Students

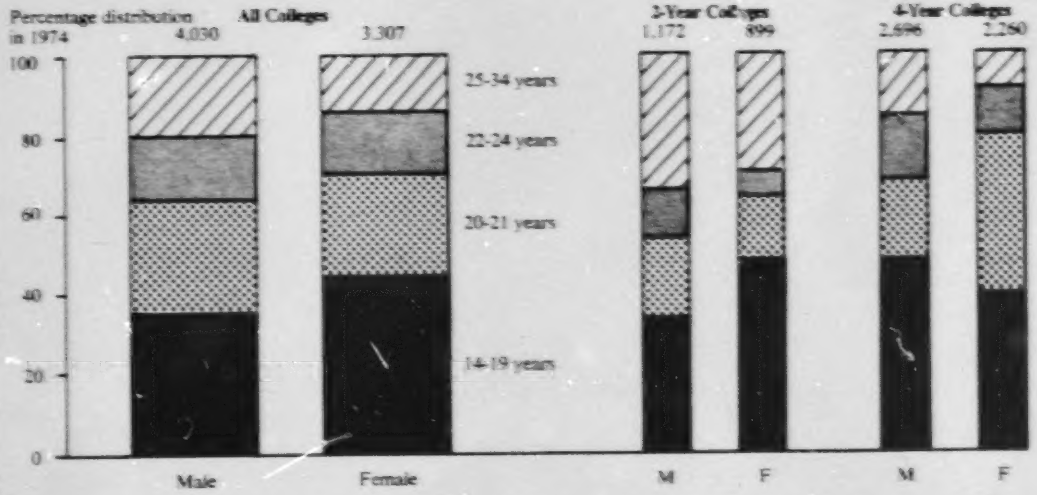


The age distribution of students at 2-year colleges differs from that of 4-year colleges.

See Table 4.15

Chart 4.15

Undergraduate College Enrollment



The percent of full-time undergraduate students from minorities increased from 10.0 in 1968 to 12.4 in 1972.

See Table 4.16

Enrollments of college students suggest greater rates of attrition among Blacks than among Whites.

See Table 4.17

Chart 4.16

Ethnic Composition of College Students

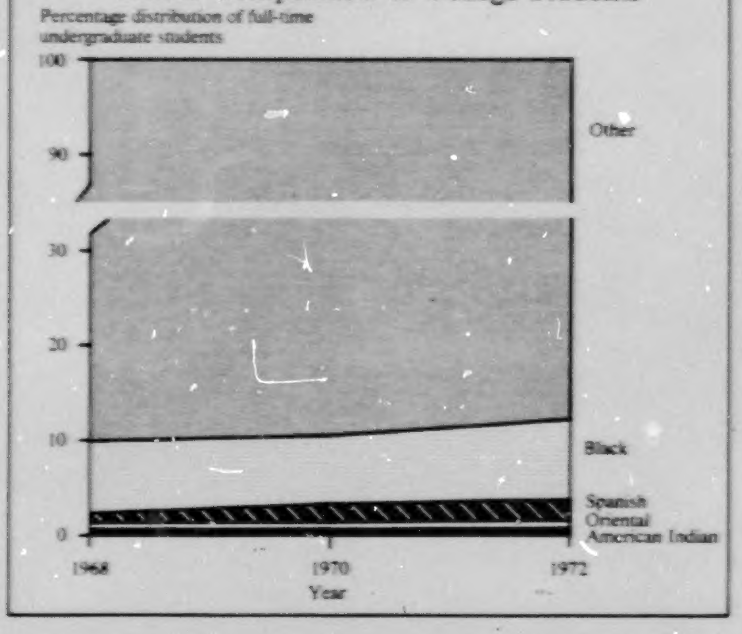
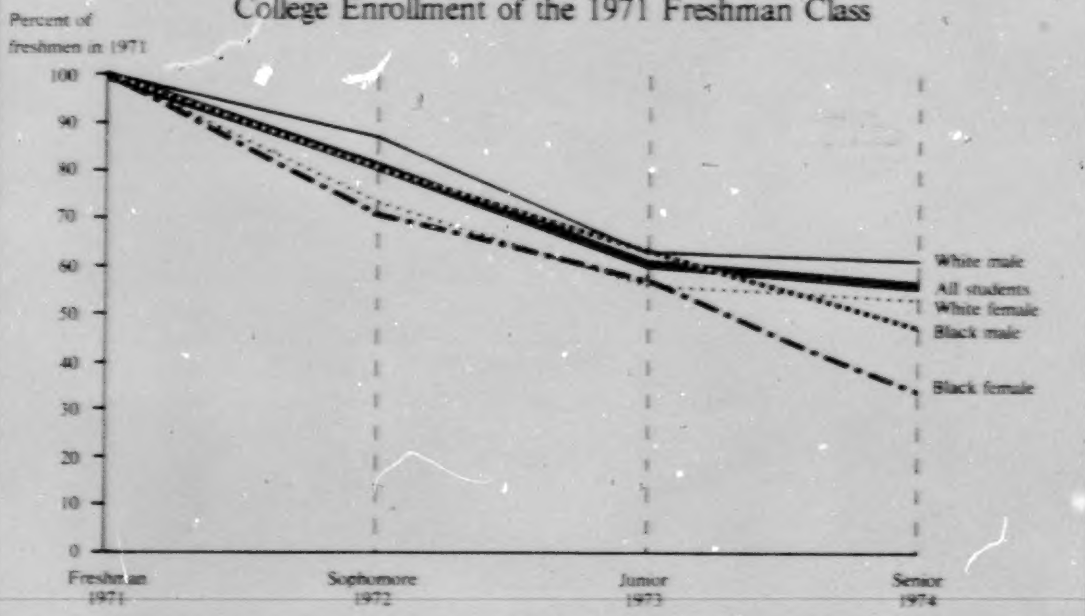


Chart 4.17

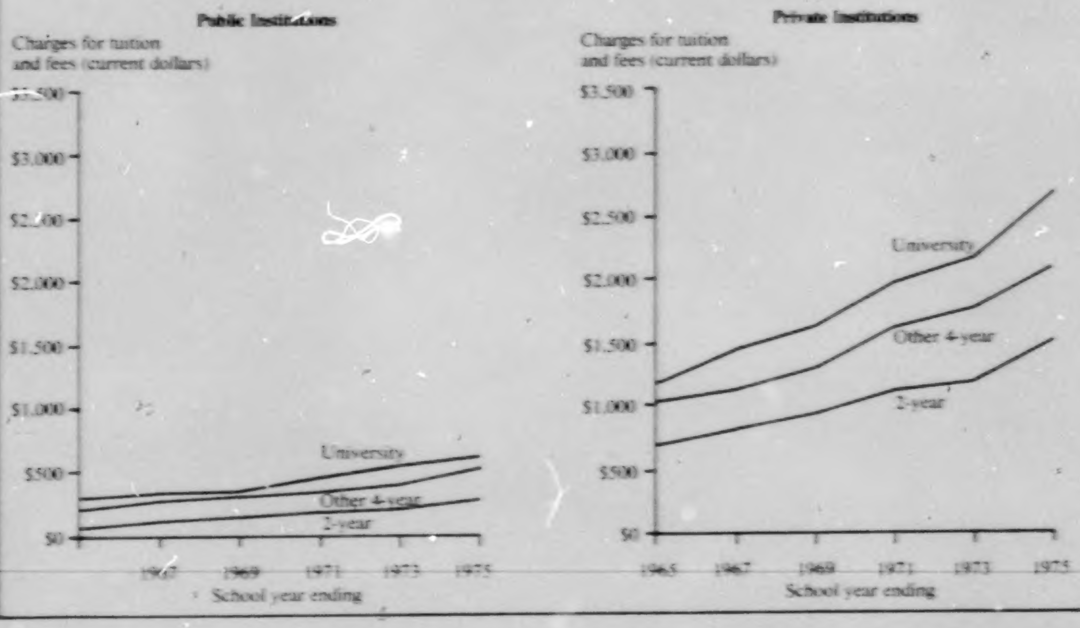
College Enrollment of the 1971 Freshman Class



Tuition and required fees for universities in 1975 averaged $653 for public institutions, and $2,701 for private institutions, a more than 4-fold difference.

See Table 4.18

Chart 4.18 Tuition and Fees for Higher Education

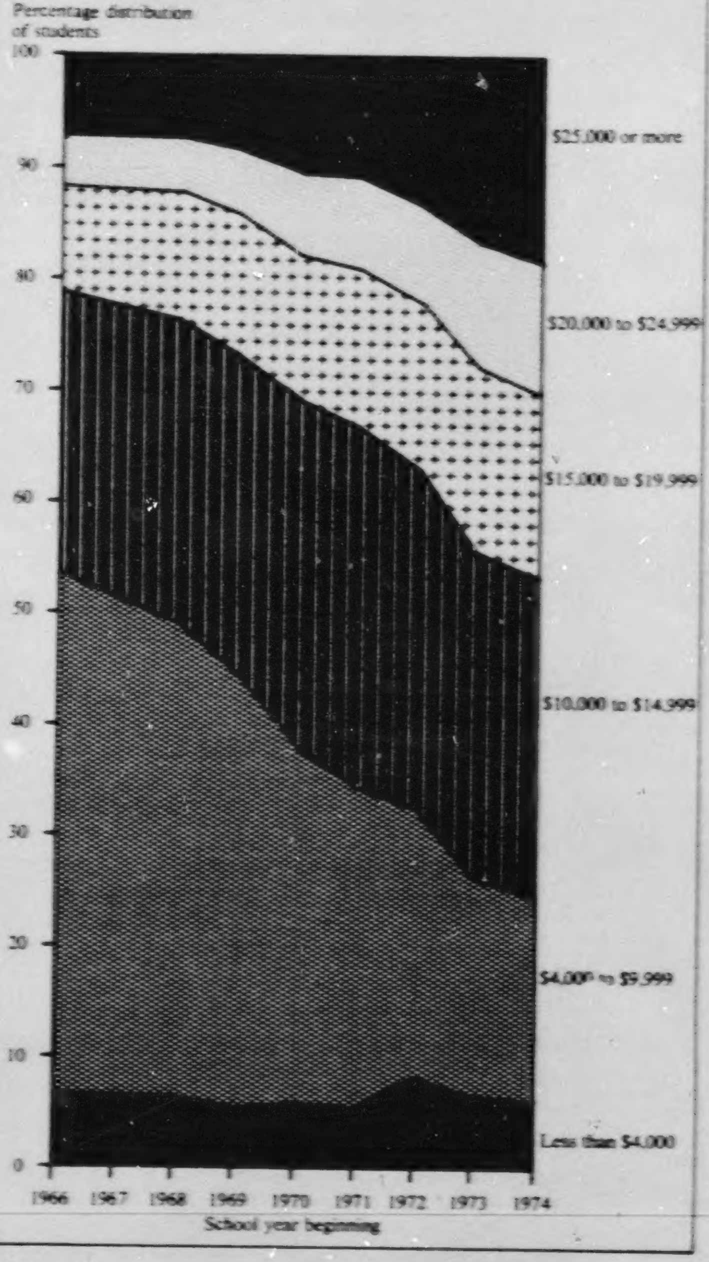


The percent of entering students in higher education from families with incomes of less than $4,000 has remained at about 6 percent since 1966.

See Table 4.19

Chart 4.19

Parental Income of Students in Institutions of Higher Education



Universities have consistently enrolled students from families with higher incomes than have 2-year colleges.

See Table 4.19

Chart 4.20

Parental Income of University and 2-Year Students

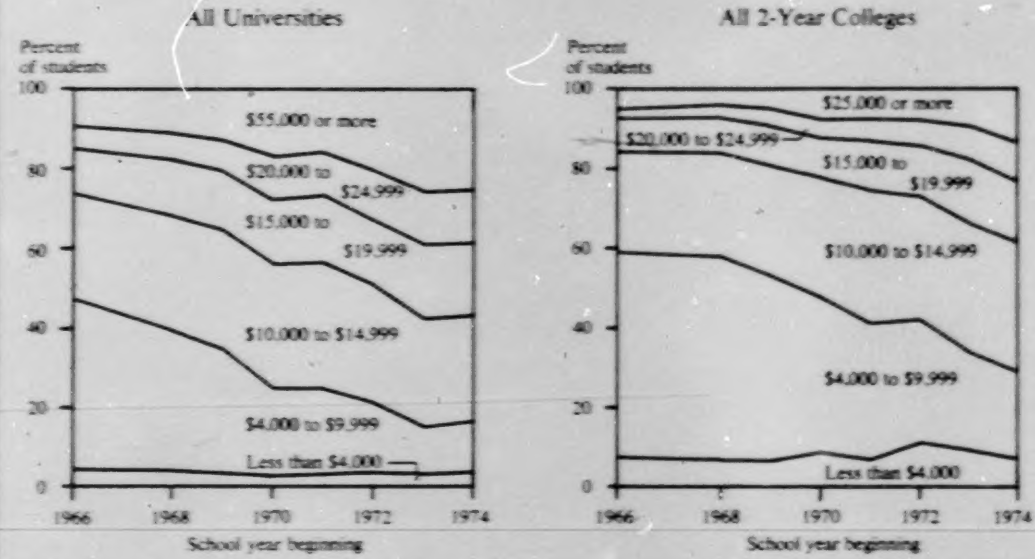
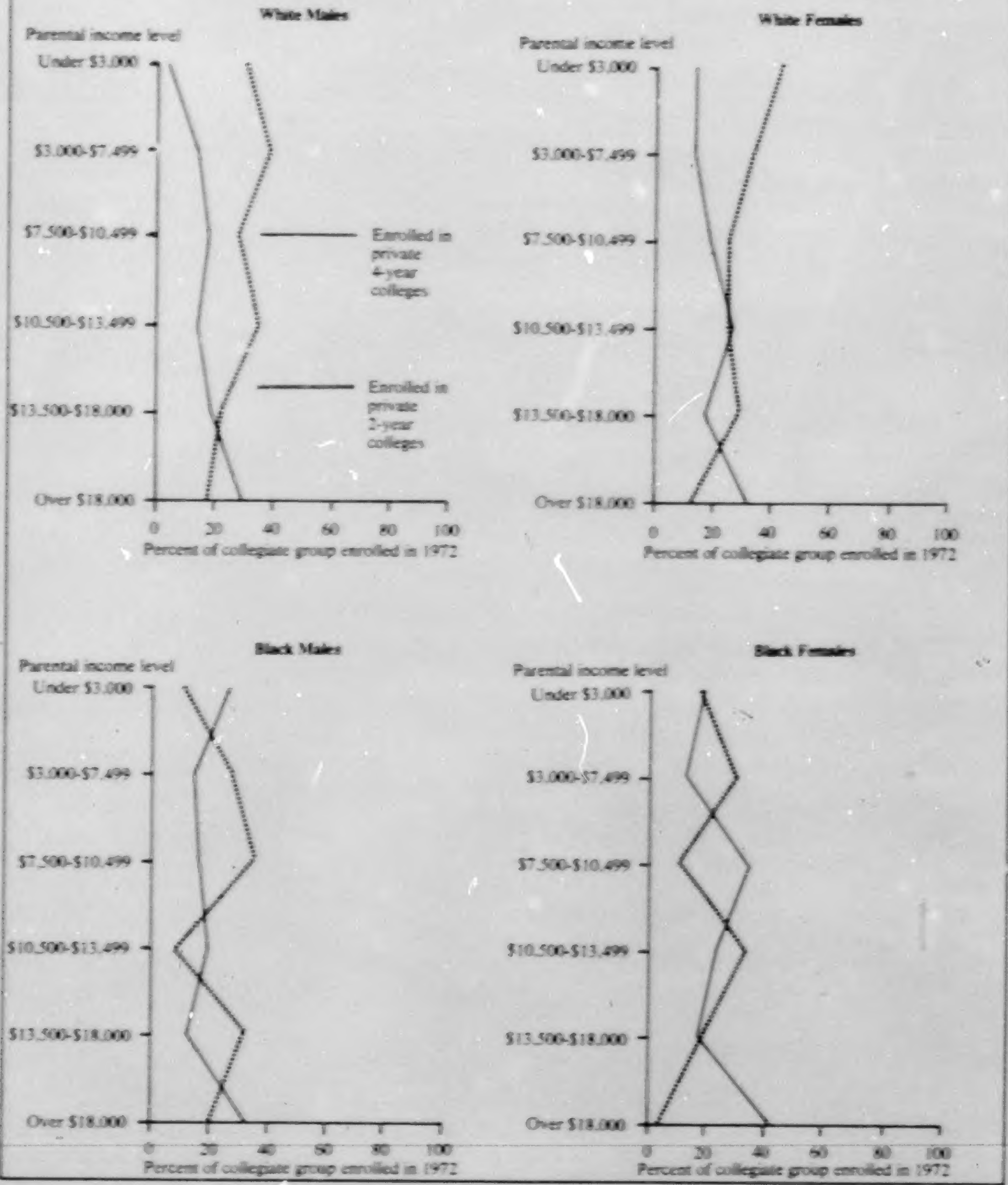


Chart 4.21

Students Enrolled in Public 2-Year or Private 4-Year Institutions



Choice of postsecondary institutions appears more closely related to family income for Whites than it does for Blacks.

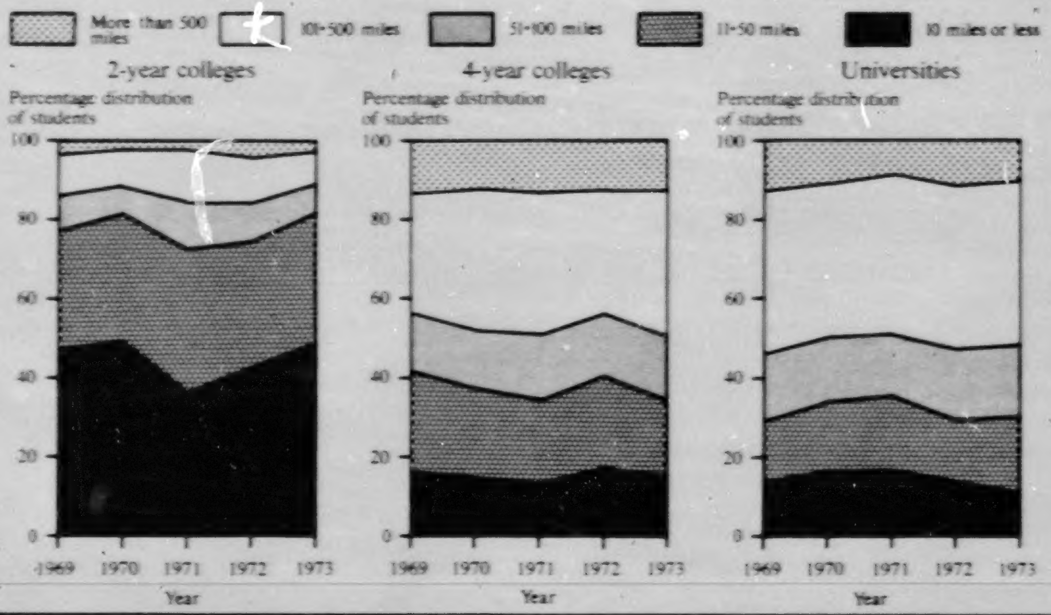
See Table 4.21

Almost half of the students attending 2-year colleges live 10 miles or less from the institution.

See Table 4.22

Chart 4.22

Distance From Home to College for First-Time Students



Adult Education

With formal instruction being sought by individuals throughout their adult lifetime, a major change in perceptions of the role and place of education may be observed in both this country and abroad. Reasons for the increased participation in what is variously called continuing or recurrent education are many and the potential ramifications of the increase are significant. As the size of the school-age population (ages 3-24) declines and an increasing proportion of the population is concentrated in adult age groups, the growing acceptance of the principles of continuing education suggests that educational activities for adults hold the potential for considerable and immediate growth.

The tendency to participate in traditional higher education institutions over more years, or simply to enroll at an older age than has been customary, was observed in the changing age distribution of students. This phenomenon is related to that aspect of recurrent education called adult education, which is defined as organized instruction (including correspondence courses and private tutoring), usually conducted at a set time and place, with a predetermined end result: a certificate, diploma, or degree. Adult education is rarely a full-time pursuit; individuals generally enroll for a few or many hours per week.

Chapter 1 cited the increase in adult education activities since 1957, when 7.8 percent of the eligible population was participating. By 1975, participation had reached an estimated 13.3 percent. There are many reasons for participation; the articulated reasons indicate the effects of both occupational mobility and greater amounts of discretionary time. When asked their principal reason for engaging in adult education, 42.7 percent of participants in 1972 cited job improvement or advancement (chart 4.23). More males (54.0 percent) than females (31.7 percent) offered this as a reason. Personal or family interests, the second most popular reason, were given by 23.5 of all participants; females chose this reason more often (32.8 percent) than males (13.8 percent).

Participation in adult education correlated closely with education level. There were some differences for Blacks and Whites when educational attainment was held constant, although there was increased participation with educational level held constant for all subgroups. Among those who did not finish high school, only 4.4 percent of White males and 2.4 percent of Black males participated (chart 4.24). Comparable figures for high school graduates were 13.9 percent for White males and 9.3 for Black males. For college graduates, 29.0 percent of White males and 26.8 percent of Black males participated. Among females, Blacks had higher levels of participation than Whites both for those who had not completed high school and for those who had graduated. Among females who were college graduates, however, participation was almost equal by race.

Courses of study elected by participants were strongly related to reasons given for enrollment. Courses providing occupational training were taken by 57.3 percent of participants (chart 4.25), with general education courses elected by 24.8 percent. Sponsors of these activities were most often 4-year colleges or universities, although 2-year colleges or technical institutes and public grade or high schools also served large numbers of participants (chart 4.26). Evidently, the facilities of the formal educational system, which traditionally has served only a very narrowly defined portion of the population, are now being utilized for a wider range of offerings.

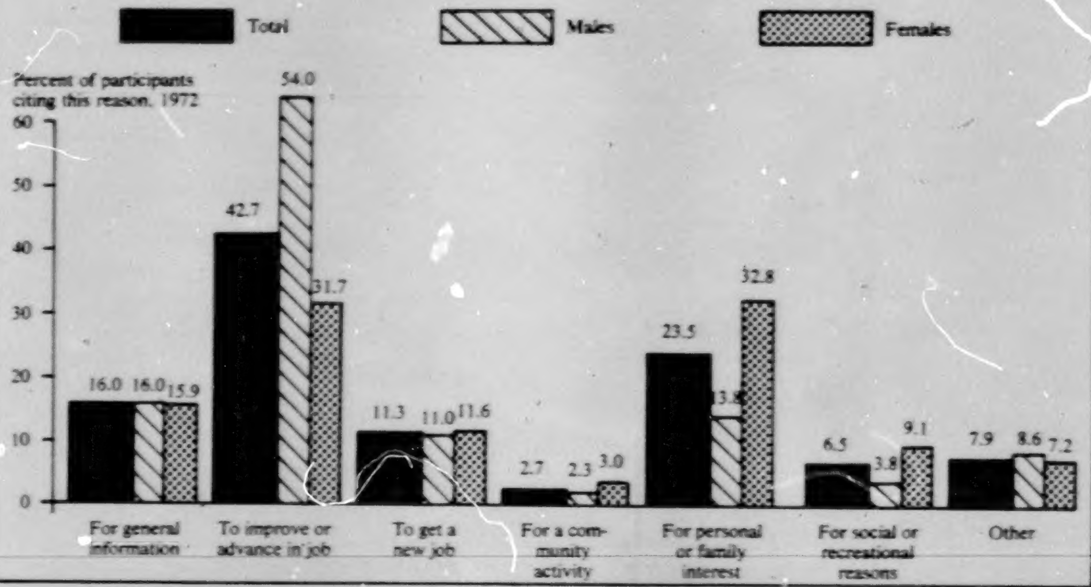
Participation rates for adult education increase with family earnings. In 1972, participation was 5.5 percent among those with family incomes of less than $4,000, and 20.3 percent for those with incomes of $25,000 and over (chart 4.27). Whatever the reasons (lack of information, geographic proximity of courses, or the nature of course offerings) for the comparatively low participation by individuals with limited incomes, participation figures indicate that higher income individuals are more likely to enroll in adult education programs currently offered.

Job advancement was the most popular reason for taking adult education for males; personal or family interest the most frequent reason among females.

See Table 4.23

Chart 4.23

Participants' Reasons for Taking Adult Education

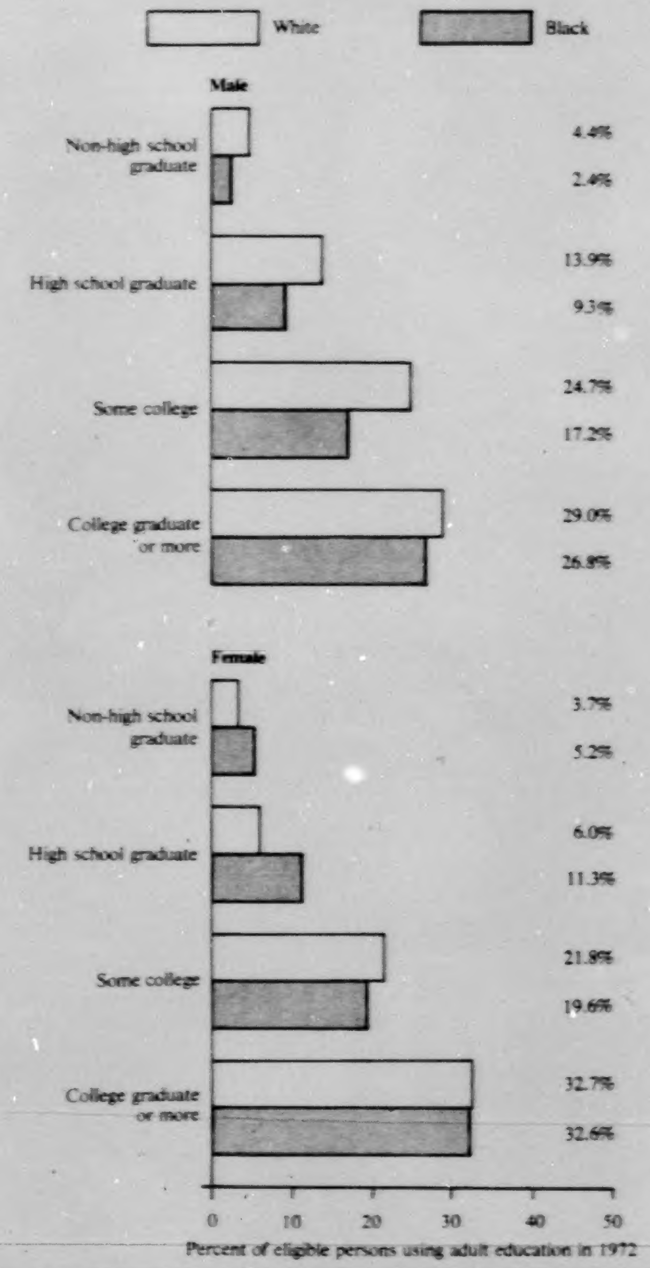


Persons with higher levels of educational attainment have higher participation rates for adult education activiites.

See Table 4.24

Chart 4.24

Educational Attainment of Adult Education Participants

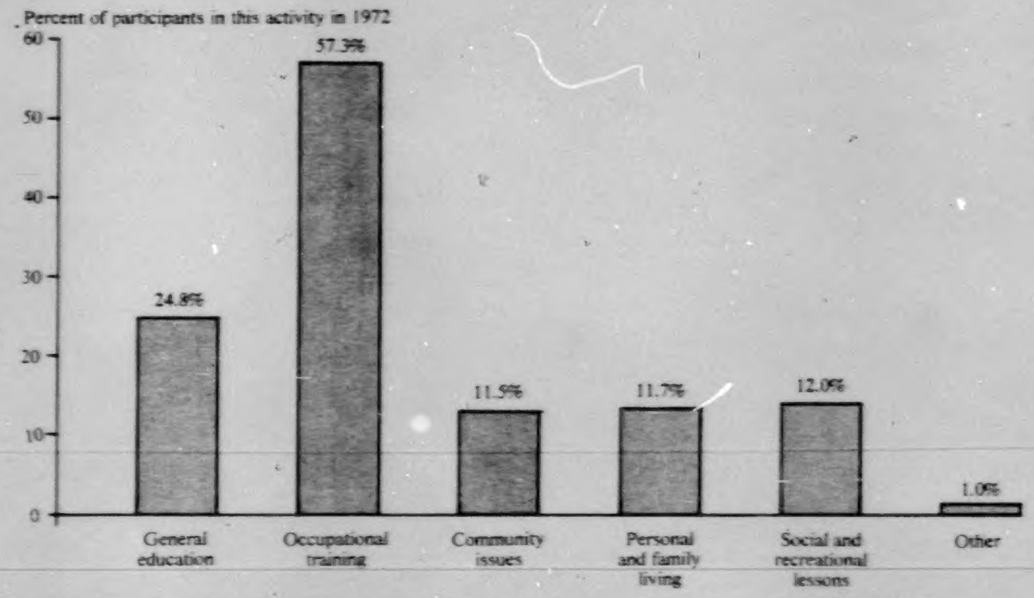


Courses offering occupational training are chosen by 57.3 percent of all participants.

See Table 4.25

Chart 4.25

Enrollment in Adult Education Activities

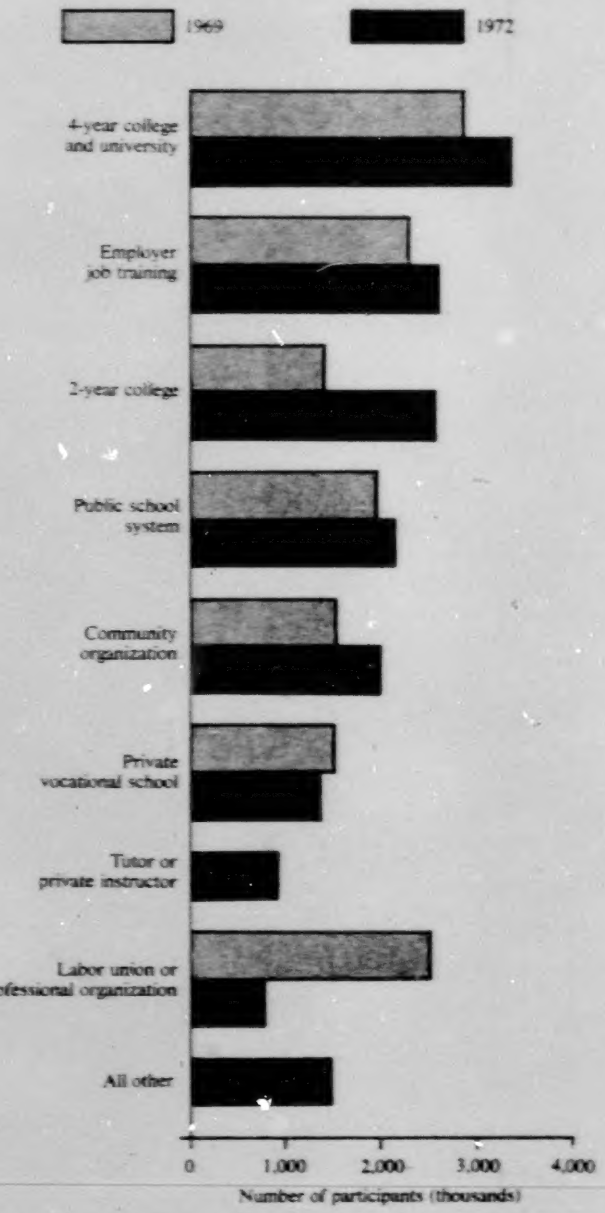


Formal educational institutions sponsor the programs serving most of adult education participants.

See Table 4.26

Chart 4.26

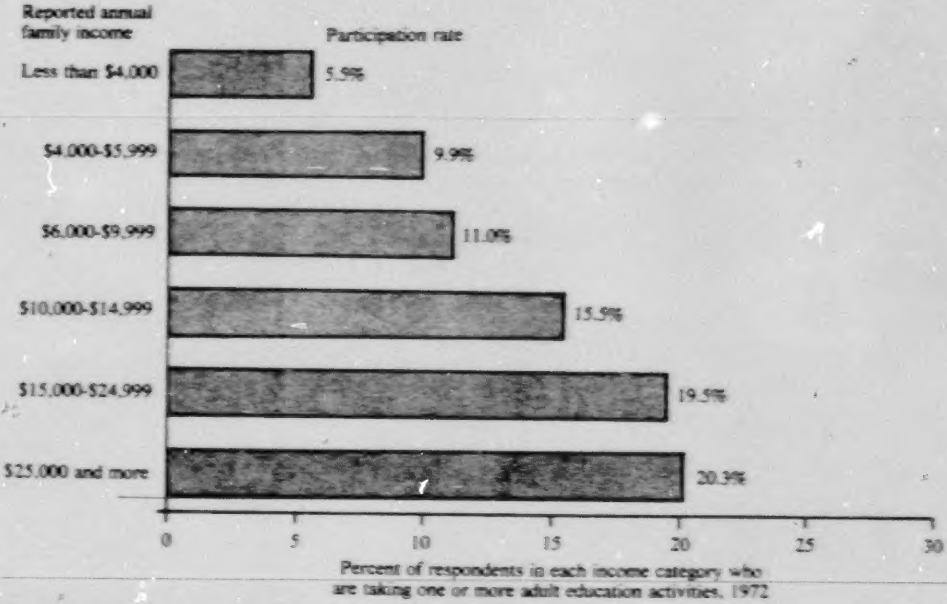
Sponsors of Adult Education Activities



Participation rates in adult education are greater among those with higher incomes.

See Table 4.27

Chart 4.27 Participation in Adult Education by Family Income



Chapter 5

Relationships Between Education and Work

Education and work have traditionally been distinct activities in this country. Work has been regarded as a natural sequel to education, and market forces of supply and demand (together with acquired training and skills) have channeled persons entering the labor market into specific jobs. Education, of course, has a broader mandate than the preparation to assume a role as an economically productive entity, important as that role may be. More specifically, the individual as student and the individual as productive worker are two distinct roles. While many have held both roles simultaneously, they often have done so on their own initiative. The principal exceptions have occurred in training for professions, where a period of internship or clerkship, involving productive labor, has from the beginning been seen as an integral part of specialized training. Other programs combining work and study activity have existed for many years, but these focus on jobs individuals may enter immediately upon leaving high school or after a short program of postsecondary study.

Persons completing formal education have naturally contributed to the pool of manpower which assumed productive jobs. Yet deliberate planning for educational opportunities to insure a supply of educated workers who will fill particular jobs has not been conducted on any large scale in this country, as it has in many less-developed countries. Recent economic conditions as well as movements advocating education as an instrument of social change in the 1960's have forced both a reevaluation of education as an avenue toward improved social conditions and higher income levels and a realization that the education enterprise is an industry whose resources, like those of all other industries, must be used wisely.

Thus there has been increased scrutiny directed towards education and work and the bridges between them. Of particular interest to educators is the ease with which individuals make the transition where it is now difficult. The following discussion will examine these items as well as educational attainment and its relation to the labor force.

Transition from Education to Work

Much interest has been expressed in the transition period between full-time schooling-jobs. It is therefore appropriate to review available statistics describing the knowledge young people have of work, their career objectives, and how they regard specialized training as a help in securing the positions they hold.

Young persons have a fairly good understanding of job requirements by the time they are ready to enter the labor force. National performance on an assessment of specific knowledge of occupations was 74.8 percent correct for all 17-year-olds, 64.3 percent for 17-year-olds out of school, and 84.3 percent for adults (chart 5.1). Scores for all 17-year-olds were consistently higher than those for 17-year-olds out of school, when compared for groups defined on the basis of sex, race, parental education, and size and type of community (table 5.1). Young adults between the ages of 26–34 in turn performed better than all 17-year-olds. It is clear that persons continue to improve their basic understanding of occupations and the kinds of tasks that are required after completing elementary/secondary education. Among 17-year-olds, those living in the urban fringe areas did better than those in metropolitan areas with populations greater than 150,000 where high proportions of the residents are on welfare or not regularly employed. The two groups had scores of 77.1 percent and 69.2 percent, respectively. But even the highest of these scores for 17-year-olds just equals the lowest score for adults in low metropolitan areas. The highest score among adult groups defined by size and type of community in which they live was 90.5 percent, for metropolitan areas with a high proportion of professionals.

In light of women's increased concern over job equality, it is of interest to observe whether career objectives articulated by recent high school graduates reflect a growing interest in work by females. In 1974, 2½ years after high school graduation, members of the high school class of 1972 were asked to state their occupational expectations at age 30 (about 1985). Responses indicated 43.3 percent of males and 41.1 percent of females planning professional or technical careers (chart 5.2). Aside from these high proportions for both sexes, preferences for the remaining occupational categories show marked differences by sex. While 19.4 percent of males hoped to be working as managers, proprietors, or administrators at age 30, only 4.9 percent of females had that goal. And while 2.0 percent of males expected to be clerical workers, 18.7 percent of females planned clerical jobs. And 24.9 percent of females expected to be homemakers or housewives at age 30. It appears that aspirations for careers are held by a substantial portion of young females, but that intentions to enter occupations formerly dominated by males are directed towards professional fields.

While the timing of vocational choices probably occurs at varying ages for varying occupations, many young people begin work immediately after leaving high school. Thus, they have made tentative choices before graduation, and, in some cases, have had specialized vocational training while enrolled in high school. In a review of the usefulness of such training by high school graduates 1 1/2 years after graduation, more than half (59 percent) of all employed youth stated they had found high school training useful in later on-the-job training programs (chart 5.3). However, a substantial minority (46 percent of males and 26 percent of females) believed they could have obtained their jobs without the training. Ambiguity toward training was reflected by their responses when asked whether they would have liked more information about what was expected in their job, beyond skill training; 37 percent of males and 29 percent of females said they would have liked more information.

An examination of the occupational experiences of individuals who were employed following high school graduation offers useful evidence as to the proportions who received some specialized training and, for those who received it, its usefulness in employment (chart 5.4). Of males employed 1 1/2 years after graduation, 76.6 percent of Blacks and 83.6 percent of Whites did not have specialized training. Those who did have specialized training and also had had a job using such training were only 8.2 percent of Black males and 9.3 percent of White males, contrasted with 22.9 percent of Black females and 22.4 percent of White females. Specialized training appears to be of use to a considerably greater proportion of females than males, perhaps because of the nature of specialized courses elected by females.

Knowledge of occupations
is greater among young
adults than 17-year-olds.

See Table 5.1

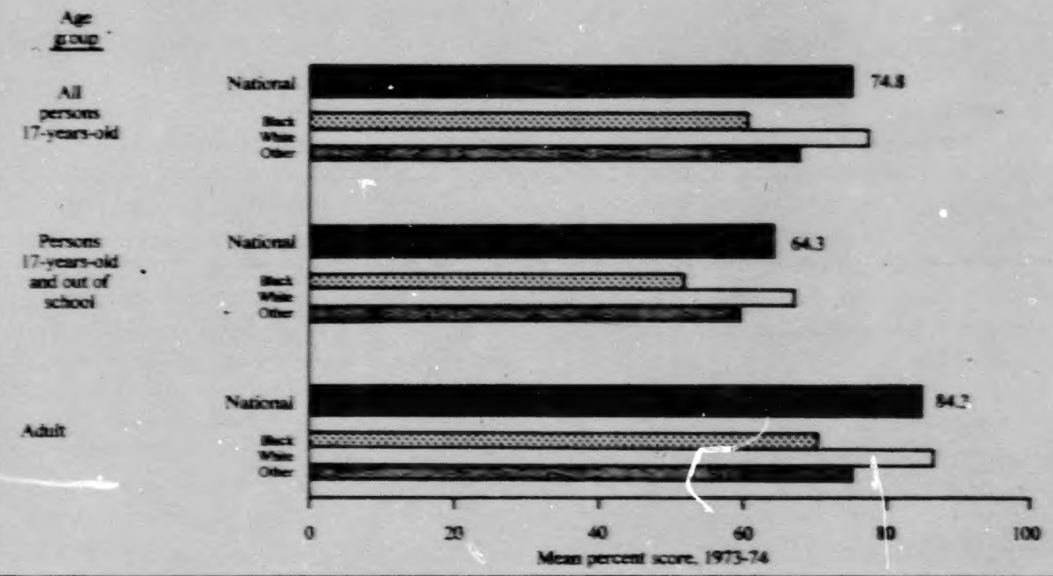


Chart 5.1

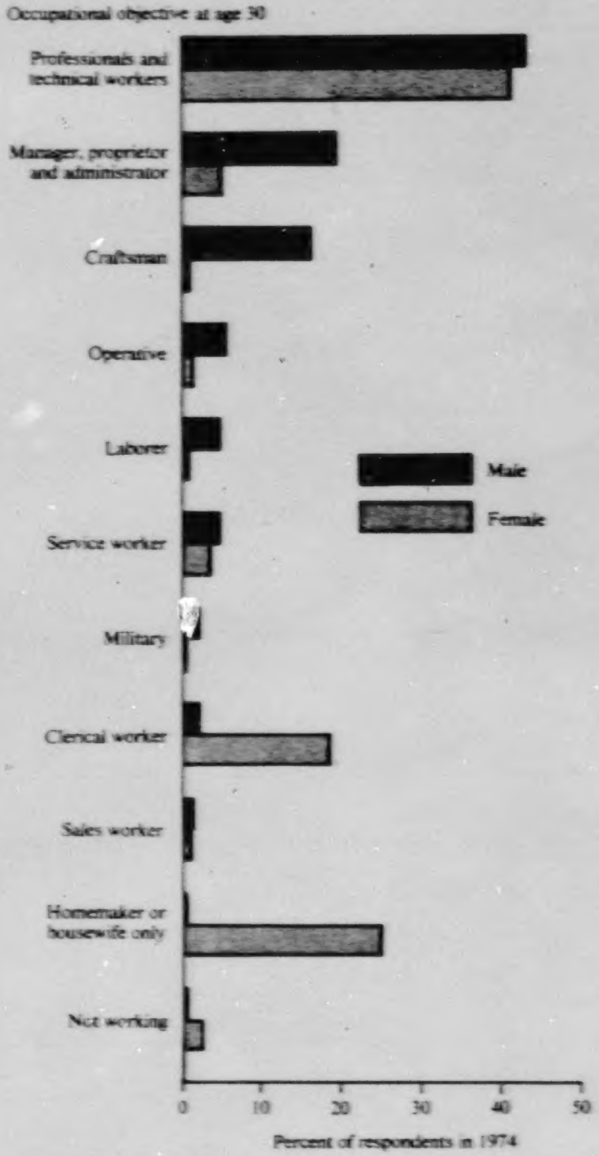
Achievement in Specific Knowledge of Occupations

Almost equal proportions of males and females aspire to professional and technical jobs; in other occupations, traditional sex differences exist.

See Table 5.2

Chart 5.2

Occupational Objectives of High School Class of 1972

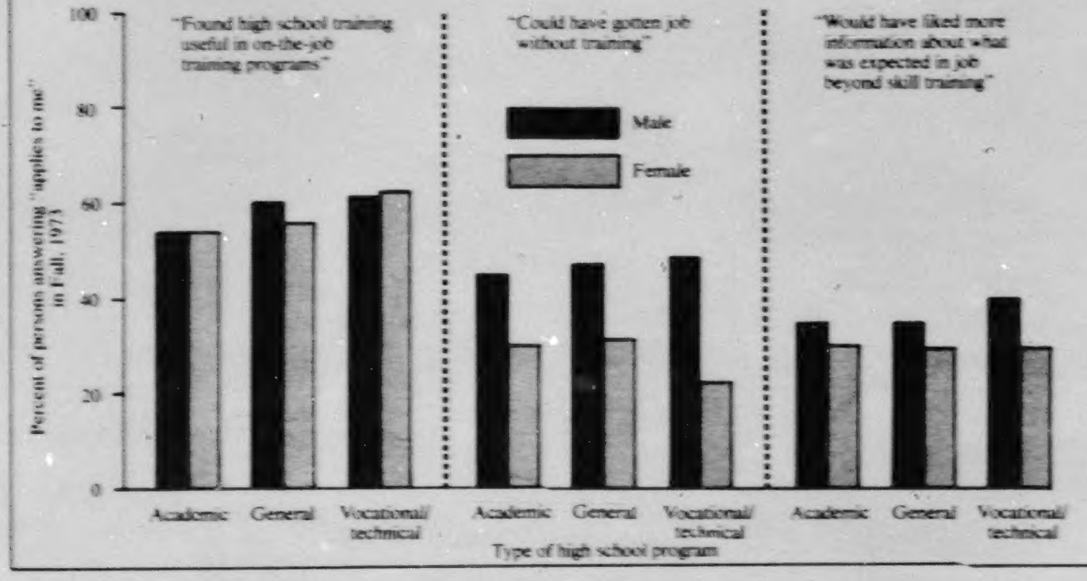


Employed young males are more likely than females to believe they could have secured their jobs without the training they received in high school.

See Table 5.3

Chart 5.3

Satisfaction of Employed Youth With High School Training

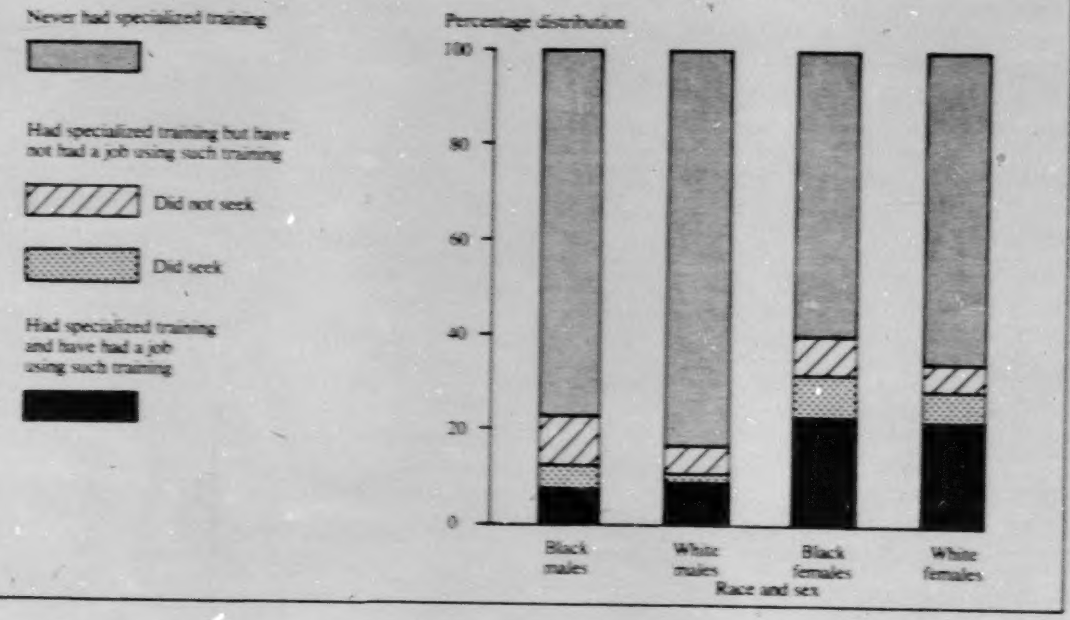


Females used specialized high school training more often in employment than did males.

See Table 5.4

Chart 5.4

Use of Specialized Training in Employment



Educational Attainment and the Labor Force

Available information regarding the transition of young adults into the labor force and their view of their training after having entered occupations needs to be considered in light of characteristics of the labor force as a whole.

There has been a consistent increase over time in the level of education attainment for the labor force (chart 5.5), although the increase is not remarkable if one considers only the median school years completed. The median, which rose from 11.1 to 12.6 years of schooling between 1952 and 1974, reflects the greater number of years of education among the young members of the labor force and, simultaneously, the diminishing number of less educated older workers.

The effect of entrance into the labor force of workers with more years of educational experience than are held by the labor force as a whole has been to increase the average educational attainment of workers in each occupational category. Useful baseline data on access to particular types of work were provided by information collected in 1974 on employment by occupations for a sample of young adult males (ages 22-23) with different educational experience. It was found that employment of high school dropouts was concentrated in blue-collar occupations, with employment at 83.1 percent of the total group of dropouts, compared with 15.6 percent employed in white-collar jobs (chart 5.6). These proportions were almost reversed for those with bachelor's degrees, 82.6 percent holding white-collar jobs. Interestingly, unlike the proportions in white- or blue-collar jobs, the proportions in farm work were not related in a direct way to educational attainment. The highest percentage of any group entering farm work was 2.9, for high school graduates; for high school dropouts the percent was 1.3, and for college graduates it was 1.8 percent. Employment in farm work depends on factors other than educational experiences, as rapid technological change alters both the need for manpower and the skills required.

The composition of the unemployed labor force also shows several important relationships between educational attainment and the ability of job seekers to find work. Unemployment rates are generally lower among workers with higher levels of educational attainment; the relationship is particularly striking when unemployment rates of high school dropouts are compared with those of persons having 4 years or more of college, for the years 1968 to 1975 (charts 5.7 and 5.8). Economic downturns usually have an especially adverse impact upon unemployment rates of less educated persons, although the period between 1969 and 1972 was an exception. A higher *rate* of increase in unemployment among college graduates for that period was the result of both a decline in demand for such professional workers as teachers and engineers and an influx into the labor force of a sizable number of job-seeking college graduates, In March 1975, workers with only 1 to 3 years of high school as a group had an unemployment rate 5 times the rate for workers with 4 years or more of college. The comparative advantage for college graduates holds for all racial groups. Female college graduates also experience relatively low employment rates, though they almost consistently have higher unemployment rates than males with comparable education (chart 5.9).

The historical and projected increases in the average rate of educational attainment of the labor force prompt some consideration of the relationship between the level of education and the decision to work, represented by the labor force participation rate. This rate which varies according to educational attainment level, especially for females, between 1964 and the present increased for females from 39 to 46 percent, but declined for males steadily from 83 to 77 percent (table 5.10). Increases for females are most notable for those with higher educational attainment. Labor force participation of females with 5 or more years of college increased from 64.6 percent in 1964 to 79.1 percent in 1975, still lower of course than the 94.2 percent in 1975 for males with comparable education.

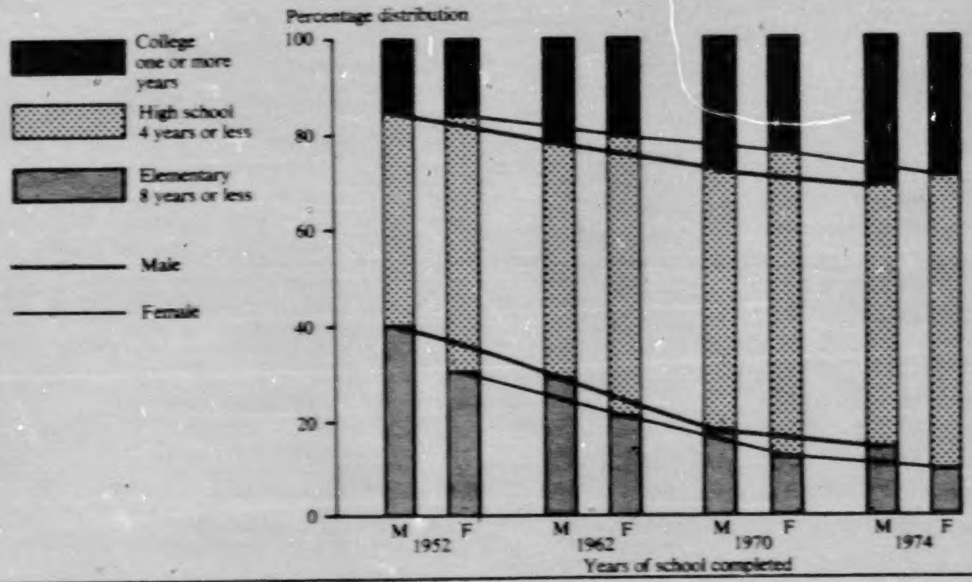
The 1975 labor force participation rates by age, sex, and education attainment (chart 5.10) show greater participation for all males at higher educational levels, with the exception of the group having 1 to 3 years of college training, which has a lower participation rate than the group of high school graduates. For females, the participation rate also is higher for each successive educational level; even the group with from 1 to 3 years of college has a rate above high school graduates.

The educational attainment of females in the labor force has been equal to or slightly higher than that of males.

See Table 5.5

Chart 5.5

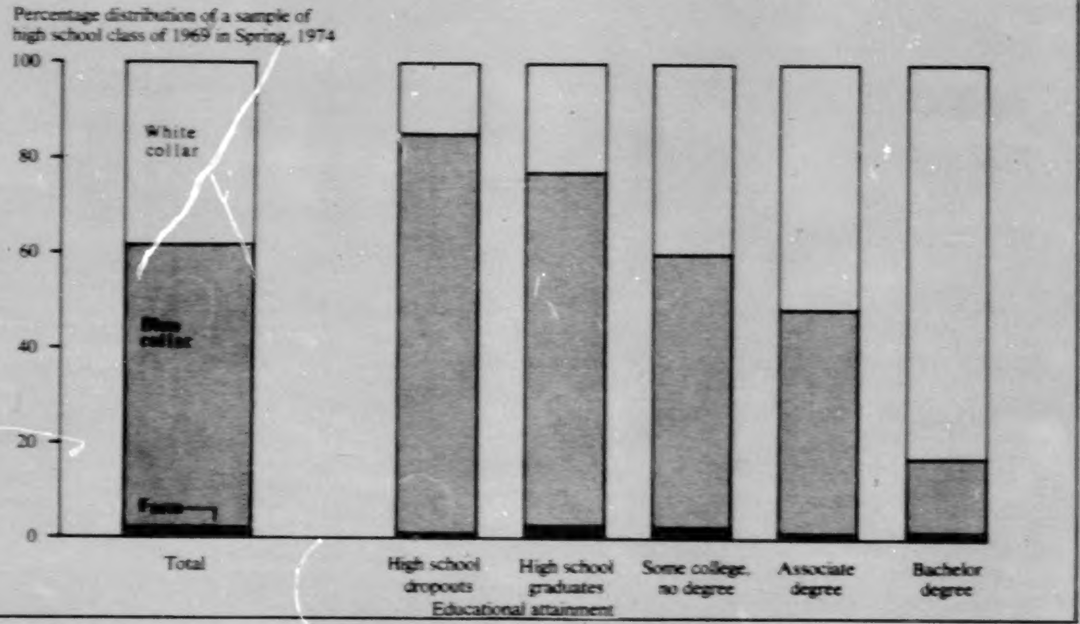
Educational Attainment of the Labor Force



The percentages of young males in white-collar jobs increases for groups with higher educational attainment.

See Table 5.6

Chart 5.6 Occupations of Young Males, by Educational Attainment

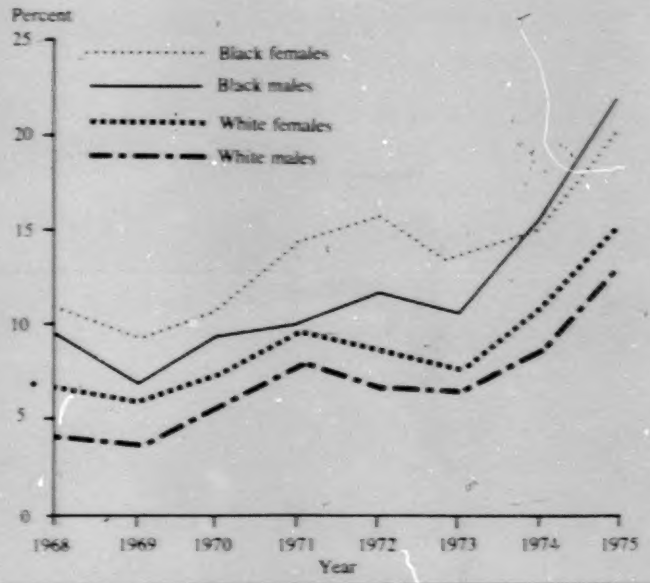


Unemployment rates for high school dropouts from 1968 to 1975 were consistently higher for Blacks than for Whites.

See Table 5.7

Chart 5.7

Unemployment Rates for High School Dropouts

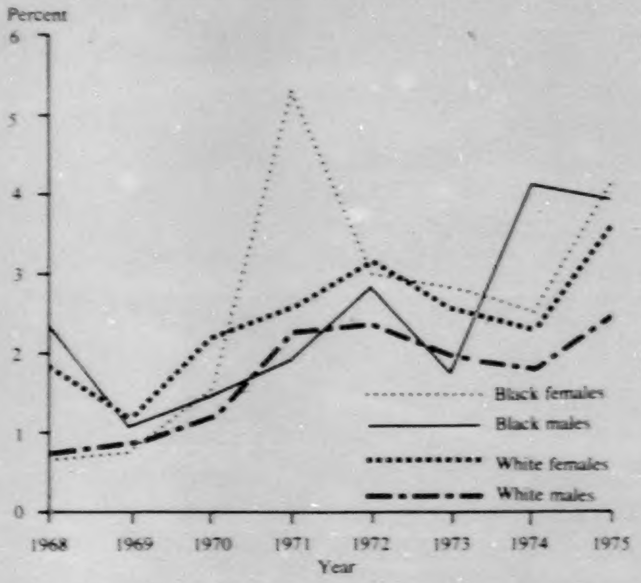


Unemployment of college graduates usually has been higher for females than for males.

See Table 5.8

Chart 5.8

Unemployment Rates for College Graduates

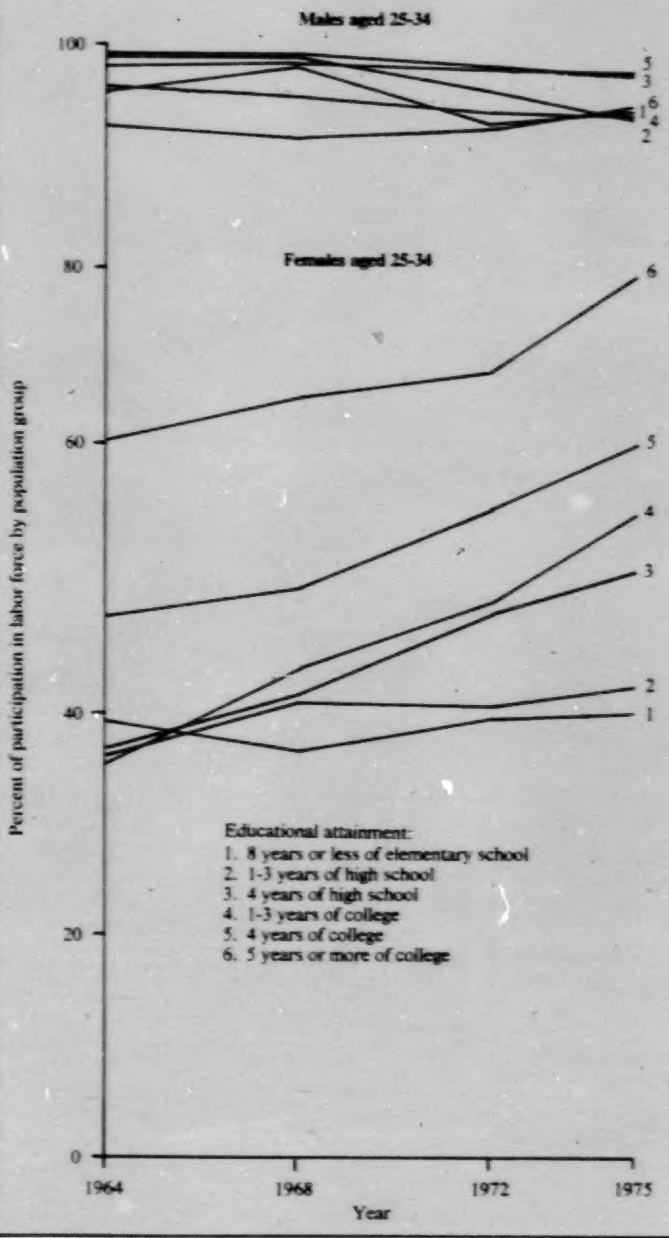


Labor force participation since 1964 has increased for females with higher educational attainments, though it still does not equal participation for males.

See Table 5.9

Chart 5.9

Labor Force Participation of Persons 25-34 Years Old

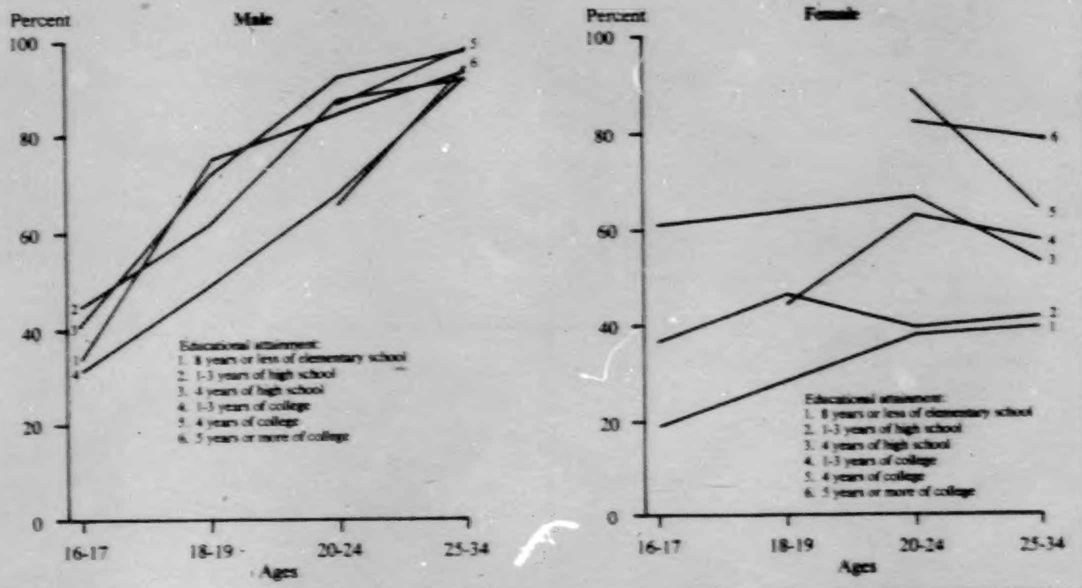


Labor force participation for females varies with age and educational attainment.

See Table 5.10

Chart 5.10

Labor Force Participation in 1975



Ties Between Education and Work in the Future

In the future, many relationships between educational attainment and work will be conditioned by action of the courts, the Congress, and State legislatures. Federal legislation and court rulings have modified employer use of education as a requirement for hiring or promoting workers. The courts' interpretations of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972, are observable in some major rulings through the first half of 1975 (chart 5.11). In the landmark United States Supreme Court's decision in *Griggs v. Duke Power* in 1971, the Court stated that an employer must demonstrate that the requirement of a high school education for a particular position must be necessary to perform that job. The decision was critical also of reliance upon "credentials" of any sort, including the college degree. In a later case, *Castro v. Beecher*, 1972, a U.S. Circuit Court of Appeals did accept the validity of a high school diploma or its equivalent as a requirement for appointment as a municipal policeman, thus modifying to some extent the impact of the *Griggs* decision. However, the Court indicated that the constitutionality of requiring a college degree for such a position was not under consideration.

These court actions may slow a growing tendency of employers to use formal educational attainment as a screening device in selecting employees. However, it must be noted that use of attainment as a screening criterion is a direct consequence of the rising level of education within the labor force, and employers have been able to impose requirements and find job applicants who meet them. Furthermore, it will be even easier to expect high educational attainment, since past trends in labor-force attainment are expected to continue through 1980 and 1990 (chart 5.12). Job prospects of persons with limited educational experience thus may be bleak in spite of court actions.

The percentage of the labor force having 8 years or less of schooling is expected to decrease to about 6 percent by 1990, and the estimated proportion of high school dropouts is expected to be less than 13 percent. Persons who have gone through high school but no further are expected to comprise 41 percent of the labor force, the same proportion anticipated for the year 1980. By 1985, more than 1 out of every 5 workers will have attended college for 4 years or longer; by 1990, nearly 1 out of every 4 workers will have attended college for 4 years or longer.

The increase in educational attainment of the labor force will parallel a shift in the occupational composition of the labor force. The portion of the labor force composed of white-collar workers will increase from 43.1 percent in 1960 to a projected 52.9 percent in 1985 (chart 5.13). Farm workers will continue a marked decline, from 7.9 percent of the labor force in 1960 to 1.6 percent in 1985.

The percentage change in employment by occupations expected between 1972 and 1985 ranges from 37.9 percent for all white-collar workers to a negative 88.6 percent for farm workers (chart 5.14). The increase for white-collar workers will be greater than that for blue-collar workers (15.3 percent) or other service workers (29.4 percent).

These projections of labor force composition are particularly interesting when compared with the aspirations of young persons. The high school class of 1972 was asked, 2 1/2 years after graduation, to state its occupational expectations at age 30 (about 1985). While the high school class of 1972 is not of course representative of the total labor force, these comparisons do identify potential concerns. Within the group of occupations collectively described as white-collar work, there were major discrepancies between expectations and projected labor-force composition (chart 5.15). Almost 50 percent of the class of 1972 expected to be engaged in professional and technical work at age 30. Even with projections of substantial increases, only about 17 percent of the labor force is expected to be in these occupations in 1985 (chart 5.14). Greater proportions expect to be in positions as managers, officials, and proprietors than are expected to occur in the labor force. Opportunities for these persons to realize their aspirations will depend on many factors, including growth and turnover in specific occupation groups.

Courts have declared that educational attainment can be used as job qualifications only when the relationship between education and a job can be demonstrated.

Chart 5.11

Court Decisions on Requirements for Educational Attainment in Employment

Willie S. Griggs et.al., v. Duke Power Company
401 US 424
U.S. Supreme Court
March 8, 1971

The majority opinion stated that "The Act [Civil Rights Act of 1964] proscribes not only overt discrimination but also practices that are fair in form, but discriminatory in operation. The touchstone is business necessity. On the record before us, neither the high school completion requirement nor the general intelligence test is shown to bear a demonstrable relationship to successful performance of the jobs for which it was used. What Congress has commanded is that any tests used must measure the person for the job and not the person in the abstract."

Pedro Castro et. al., v. Nancy Beecher
No. 71-1180, 71-1395, 71-1396
U.S. Court of Appeals
First Circuit
April 26, 1972

· An educational requirement for appointment as a municipal policeman that could be met by graduation from high school, by a certificate of equivalency, or by an honorable discharge after three years of military service did not amount to unlawful discrimination on account of race. . . Since the requirement's relationship to job performance ability was supported by a report on a study conducted by a federal commission on law enforcement that recommended an even higher educational attainment, the public authorities were shown to have a compelling state interest in professionalizing the police force by making the requirement a valid screening device.

Paul Spurlock v. United Airlines, Inc.
No. 71-1645
U.S. Court of Appeals
Tenth Circuit
October 10, 1972

The court found that the airline did not discriminate . . . where the information contained in the application revealed that the applicant did not meet the minimum qualifications required for the job in regard to a college education and hours of flight time.

Albemarle Paper Company v. Moody
No. 74-389 43 LW 4880
U.S. Supreme Court
June 24, 1975

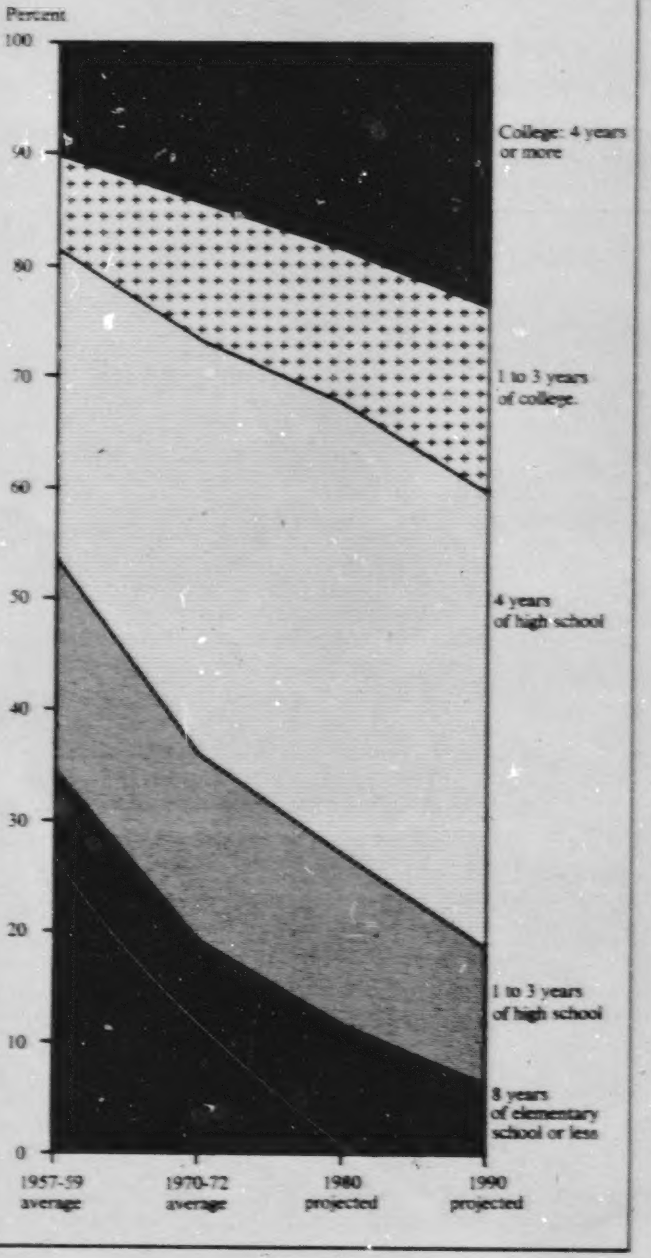
The Supreme Court ruled that an employment test is impermissible unless shown, by professionally acceptable methods, to be "predictive of or significantly correlated with important elements of work behavior which comprise or are relevant to the job or jobs for which candidates are being evaluated."

The educational attainment of the labor force is expected to continue to increase.

See Table 5.12

Chart 5.12

Educational Attainment of the Labor Force

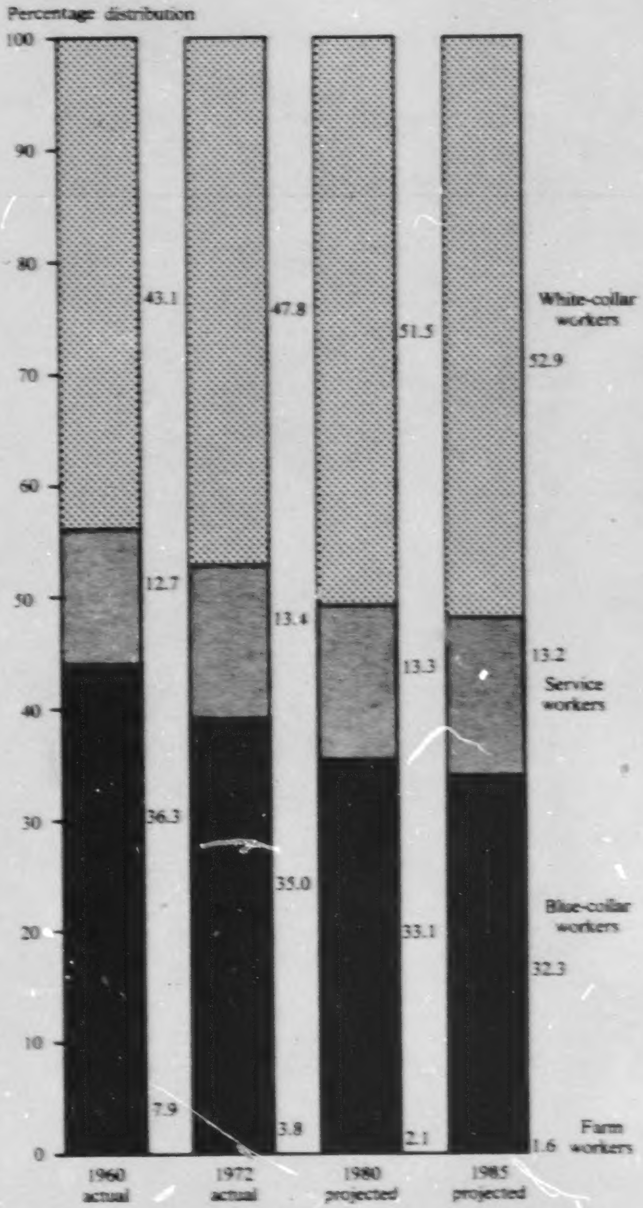


Employment is expected to continue to shift toward white collar occupations.

See Table 5.13

Chart 5.13

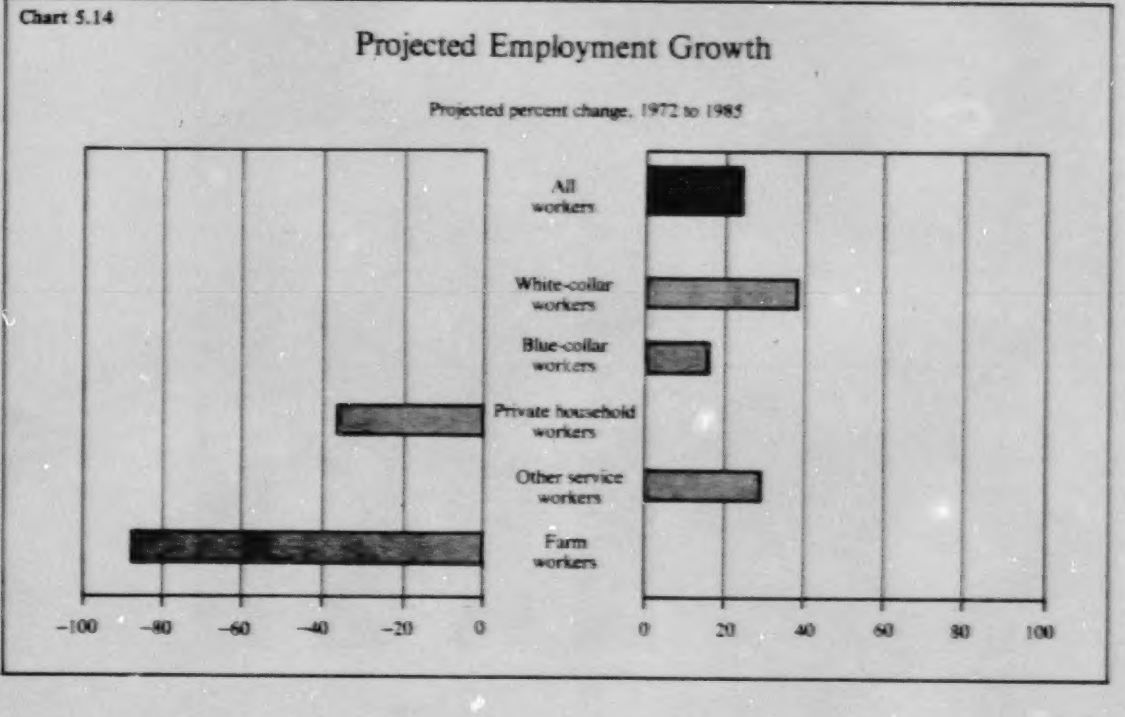
Employment by Major Occupational Group



Employment growth will vary widely among occupations through 1985.

See Table 5.14

Chart 5.14

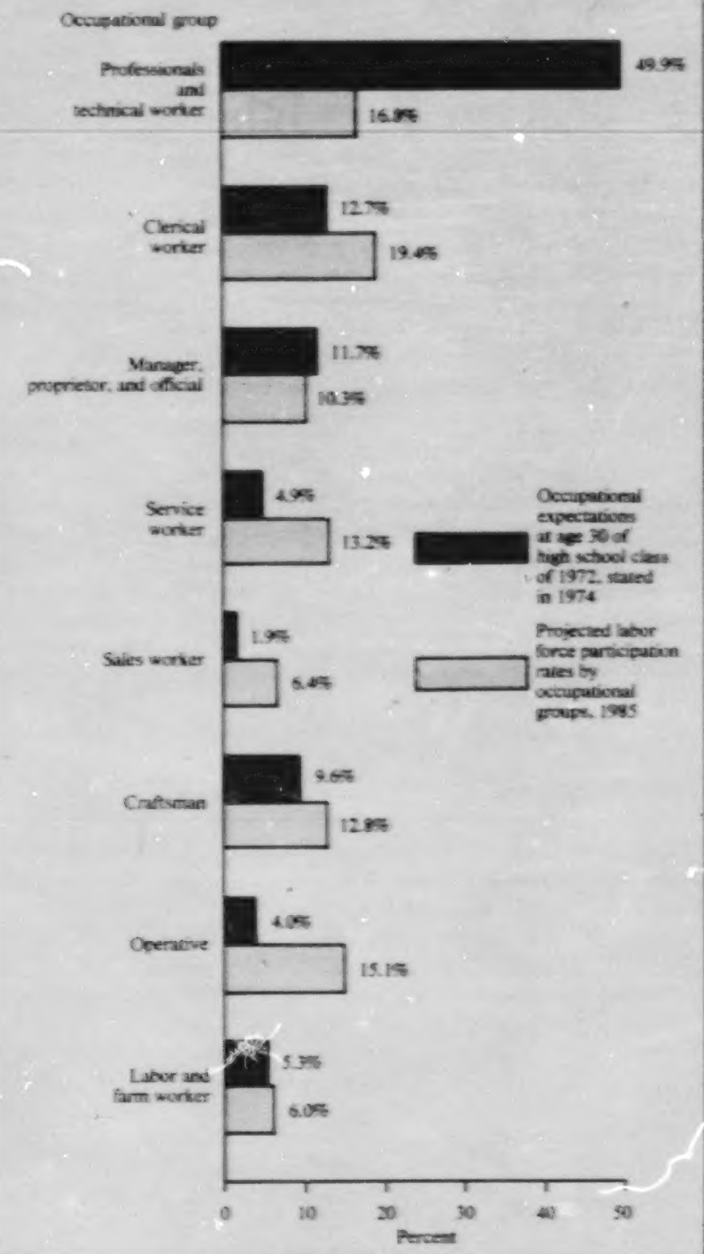


Job aspirations at age 30 of the high school class of 1972 are different from the projected composition of the labor force in 1985.

See Table 5.15

Chart 5.15

Occupational Expectations of Young Adults



Chapter 6

Education Personnel

The decline in the size of the school-age population will have a profound impact upon the staff of educational institutions. During the 1960's, when enrollments climbed rapidly, the workforce of teachers and school administrators required to staff the schools grew accordingly. Because most of the teacher candidates came from a large pool of recent college graduates, the new teacher force was youthful, freshly trained, and available to school districts and universities at comparatively low cost.

In contrast, the current picture for educational staff is one faced by other no-growth industries. A declining population of students reduces the demand for teachers, with demand for new teachers consequently even less than that required to replace teachers leaving the labor force. The growth factor no longer contributes to the number of openings. With additions of young teachers greatly reduced, the composition of the teaching force can be expected to change. First, it will show an increasing average chronological age and more years of experience. Furthermore, because most salary schedules reward seniority, the average salaries of teachers may rise even if there are minimal changes in current salary schedules.

Statistics showing educational personnel trends portray the characteristic growth of recent years. Although these trends will certainly change, the magnitude of the changes and the role such factors as technology will play remain to be seen.

Elementary and Secondary School Staff

Chapter 1 portrayed the dramatic growth of elementary and secondary instructional staff. In 1970, more than 10 times as many persons were employed as staff than in 1870 (chart 6.1). Distribution of staff by sex has fluctuated, in part reflecting external political or social events that have affected the relative availability of males and females for teaching positions. In 1870, 38.7 percent of instructional staff in elementary and secondary schools were male, but the proportions, at other times, have been very different. Thus, in 1910, 21.1 percent of the instructional staff were male; in 1940, 22.2 percent were male.

In the years between 1960 and 1974, instructional staff in public elementary and secondary schools, including principals, have increased from 1,464,031 to 2,425,445 (table 6.2). This recent growth has been accompanied by a diversification of staff roles and responsibilities. While classroom teachers have accounted for a considerable portion of that total increase in numbers, other specialized categories have exhibited much larger proportionate increases. The number of supervisors of instruction has risen from 13,775 in 1960 to 37,738 in 1974, almost a 3-fold increase. Guidance and psychological personnel have shown the greatest rate of increase, from 15,173 in 1960 to 65,069 in 1974 (chart 6.2).

The size of the public elementary and secondary school enterprise varies considerably by State, reflecting, of course, population differences and age distributions: thus, staff size ranged from 4,532 in Alaska to 221,020 in California (chart 6.3). Of equal interest is the distribution of instructional staff by function. For example, while California had a total of 221,020 instructional staff in 1973-74, and New York had slightly fewer (217,489), California reported that 1,971 of instructional staff were consultants or supervisors of instruction, while New York reported 9,279.

Pupil-teacher ratios for public and nonpublic elementary schools have declined sharply since 1955. In 1955, there were 30.2 pupils per teacher for public elementary schools and 40.4 in nonpublic schools; by 1974, these numbers declined to 22.7

for public and 23.1 for nonpublic schools. This decline is expected to continue in the immediate future, in part due to the declining school age population. Declines in the figures for secondary schools have been less dramatic–from a high of 21.7 in the years 1961 through 1963 to 18.7 in 1974. The number of pupils per teacher in nonpublic secondary schools has been consistently lower than for public schools.

The teacher surplus, which has attracted considerable press notice, is expected to continue into the 1980's. While the supply of teachers is increasing, though slowly, the demand for new teachers is declining and will continue to decline at least until 1981. In 1973, 205,000 new teachers were needed; in 1981, it is expected only 145,000 new teachers will be required to staff the teaching force (chart 6.5). The most conservative estimates of teacher supply suggest there may be 281,000 newly qualified teachers in 1981. Even if historical estimates of the proportion of newly qualified teachers actually seeking work hold true, and only 75 percent of those eligible to teach seek a position, there will be 211,000 persons seeking employment in 1981.

The growth of union membership among teachers has been rapid since 1964. Membership in one union, the American Federation of Teachers (AFT), increased from 100,000 in 1964, to 440,000 in 1974 (chart 6.6). These figures compare with a growth in the State and County Employees Union from 234,839 in 1964 to 648,160 in 1974. In the same period, the Retail Clerks Union membership rose from 427,555 to 650,876 (table 6.6).

Since 1966, teacher involvement in work stoppages has been substantial. Between 1959 and 1965, there were no more than 10 instances of work stoppages reported in any one year (table 6.7). But in each of the years 1969, 1970, and 1973, more than 100 instances of work stoppage occurred. The year 1969 saw the greatest number–183 instances, involving 105,000 teachers, with a resulting 412,000 man-days idle during the year. The largest number of workers involved was 145,000, in 1968, when the average number of days idle per worker was 15.

The average annual salary of instructional staff in public elementary and secondary schools has risen in current dollars from $3,825 in 1953–54 to $13,400 in 1975–76 (chart 6.8). However, in constant 1974–75 dollars, the increase has been comparable to a rise from $7,396 to $12,300 in 1975–76. The figure for 1975–76 represents a slight decline in purchasing power from the high of $12,835 in 1972-73. Average salaries are expected to increase in constant dollars and to reach $13,200 in 1983–84. Average salaries in many States declined in purchasing power between 1969–70 and 1974–75. However, during the 10-year period, 1959–60 to 1969–70, average teacher salaries increased in every State and outlying area even in dollars adjusted to 1974–75 purchasing power.

A declining school-age population, and the consequent reduction of demand for new teachers, is expected to bring about a reduced turnover rate and an increased average age for teachers. Opportunities to provide inservice education on a continuing basis are cited as an important means of serving the needs of students and providing support services to teachers. Experiences in teacher inservice activities which were part of the school reform movements initiated in the 1960's have served as useful models.

In past years, instructional staff have helped considerably Federal efforts to meet the needs of special population groups by providing educational services. Staff training has been conducted as part of these programs. During the 12 months comprising the regular school term for 1972-73 and the summer of 1973, those Federal programs administered by local education agencies accounted for $48,861,000 in training expenditures (chart 6.10). Five programs received over three-fourths of this amount, with the largest portion (38 percent) administered through the Elementary and Secondary Education Act (ESEA), title I. Over 182,600 teachers participated in the training provided through the program.

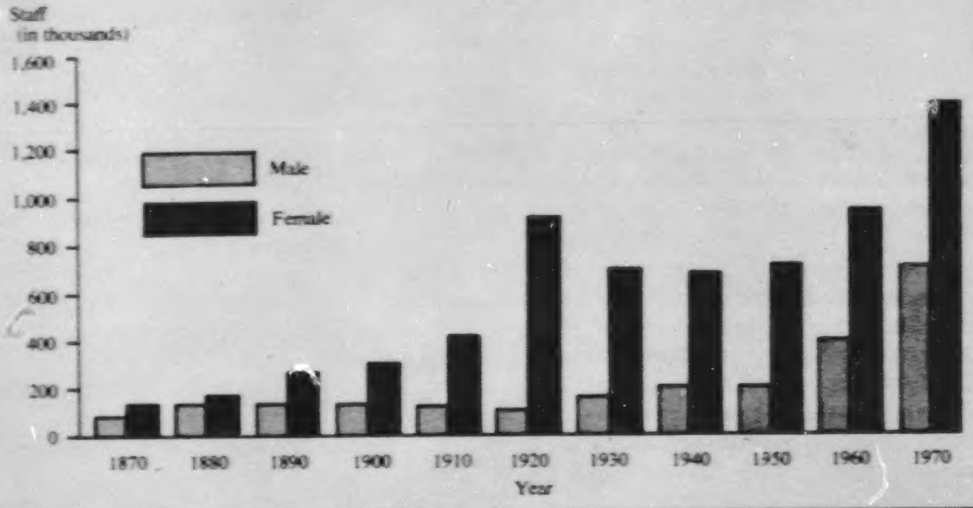
Instructional staff in elementary and secondary schools have also assisted pupil populations served by Federally funded programs. More than 276,800 teachers were assigned to Federally aided programs during the school year 1972–73; during the same period, almost 37,000 other professionals, 255,000 nonprofessionals, and 20,000 technical staff also participated (table 6.11). The largest group of staff members on a single program (259,593) were assigned to assist children from low-income areas. Other staff assigned to programs included 20,385 in programs to assist handicapped children, 12,016 in programs serving children from limited or non-English speaking environments, and 7,611 in programs to help children of migratory workers (chart 6.11).

Women constituted a larger proportion of instructional staff in public elementary and secondary schools in 1970 than in 1870.

See Table 6.1

Chart 6.1

Elementary and Secondary School Instructional Staff

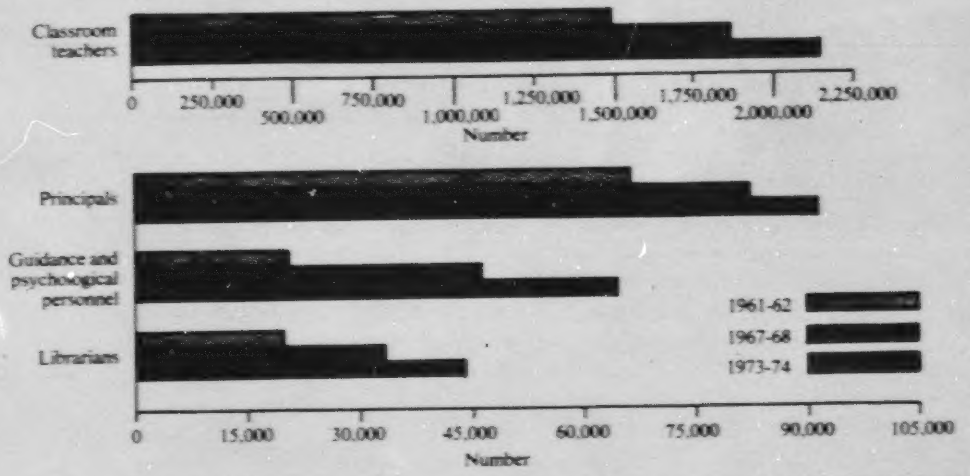


The growth in numbers of instructional staff since 1960 has been accompanied by more rapid increases in the numbers of specialized staff than in numbers of teachers.

See Table 6.2

Chart 6.2

Instructional Staff in Public Elementary and Secondary Schools



89 percent of instructional staff in the United States was classroom teachers in 1974.

Chart 6.3

Instructional Staff in Public Elementary and Secondary Schools, by State

State or other area	Type of position (in full-time equivalents)						
	Total instructional staff	Principals and assistant principals	Consultants or supervisors of instruction	Classroom teachers	Librarians	Guidance and psychological personnel	Other nonsupervisory instructional personnel[1]
United States	2,425,445	100,455	37,738	2,155,448	44,242	65,069	22,493
Alabama	36,542	1,458	266	34,818	–	([2])	–
Alaska	4,532	199	79	4,046	105	103	–
Arizona	23,652	849	491	21,042	511	637	122
Arkansas	22,157	967	94	20,285	423	388	–
California	221,020	9,565	1,971	200,832	1,752	6,900	–
Colorado	29,833	1,416	478	26,392	455	813	279
Connecticut	40,586	1,133	762	36,573	538	1,580	–
Delaware	7,160	295	111	6,280	148	217	109
District of Columbia	8,436	369	212	7,195	181	344	135
Florida	79,522	3,312	1,218	67,516	2,243	3,798	1,435
Georgia	56,623	2,298	325	51,070	1,889	1,041	–
Hawaii	8,781	378	–	7,906	231	266	–
Idaho	9,343	486	127	8,279	167	270	14
Illinois	125,119	4,998	2,691	110,403	2,628	3,779	620
Indiana	55,435	2,565	703	49,873	820	1,403	71
Iowa	36,308	1,683	113	32,518	845	1,098	71
Kansas	28,880	1,392	245	25,377	823	737	306
Kentucky	34,894	1,464	347	31,170	1,158	752	3
Louisiana	42,807	1,438	547	38,804	1,139	879	–
Maine	12,378	559	193	11,226	136	263	1
Maryland	48,322	2,354	561	42,793	1,127	1,396	91
Massachusetts	70,609	3,193	1,722	61,943	1,257	2,494	–
Michigan	108,514	4,781	1,354	96,291	1,978	3,315	795
Minnesota	48,376	1,800	531	43,622	1,131	1,166	126
Mississippi	26,249	1,268	378	23,071	662	548	322
Missouri	53,981	2,313	808	48,001	1,147	1,530	182
Montana	9,767	387	122	8,733	252	273	–
Nebraska	10,515	796	607	17,156	162	494	–
Nevada	6,279	282	55	5,629	128	185	–
New Hampshire	8,673	441	110	7,512	111	275	224
New Jersey[3]	93,667	3,133	1,059	83,621	–	–	[4]5,854
New Mexico	13,636	658	257	12,057	237	392	35
New York[3]	217,489	8,202	9,279	188,572	2,617	7,173	1,646
North Carolina	56,459	2,017	537	50,864	1,619	1,020	402
North Dakota	7,888	259	40	7,303	126	107	53
Ohio	115,726	5,002	844	102,739	2,077	3,523	1,541
Oklahoma	32,201	1,694	238	29,190	399	671	9
Oregon	27,700	1,219	612	24,072	697	855	245
Pennsylvania	126,748	3,770	1,828	113,721	2,139	3,720	1,570
Rhode Island	10,807	405	158	9,422	231	443	148
South Carolina	32,805	1,540	691	28,725	1,092	757	–
South Dakota	9,213	399	53	8,257	187	200	117
Tennessee	42,473	1,539	579	38,107	1,180	1,068	–
Texas	148,401	6,860	1,193	132,843	2,179	2,490	2,836
Utah	13,952	597	179	12,319	302	406	149
Vermont	7,063	388	77	6,024	162	236	176
Virginia	62,221	2,848	965	54,893	1,791	1,724	–
Washington	39,834	1,832	1,204	32,651	1,178	1,290	1,679
West Virginia	20,839	1,300	390	18,553	270	363	14
Wisconsin	56,639	2,121	356	50,351	1,221	1,571	1,019
Wyoming	5,400	233	38	4,808	91	136	94
Outlying areas:							
Canal Zone	666	20	13	611	4	18	–
Guam	14,25	74	14	1,248	34	55	–
Virgin Islands	1,365	59	10	1,214	26	56	–

[1] Includes audiovisual instructors, television instructors and other nonsupervisory instructional staff.
[2] Included with classroom teachers.
[3] Data from published annual State report.
[4] Includes librarians and guidance, psychological, and other nonsupervisory instructional staff.
[5] Data are number of full-time and part-time positions.

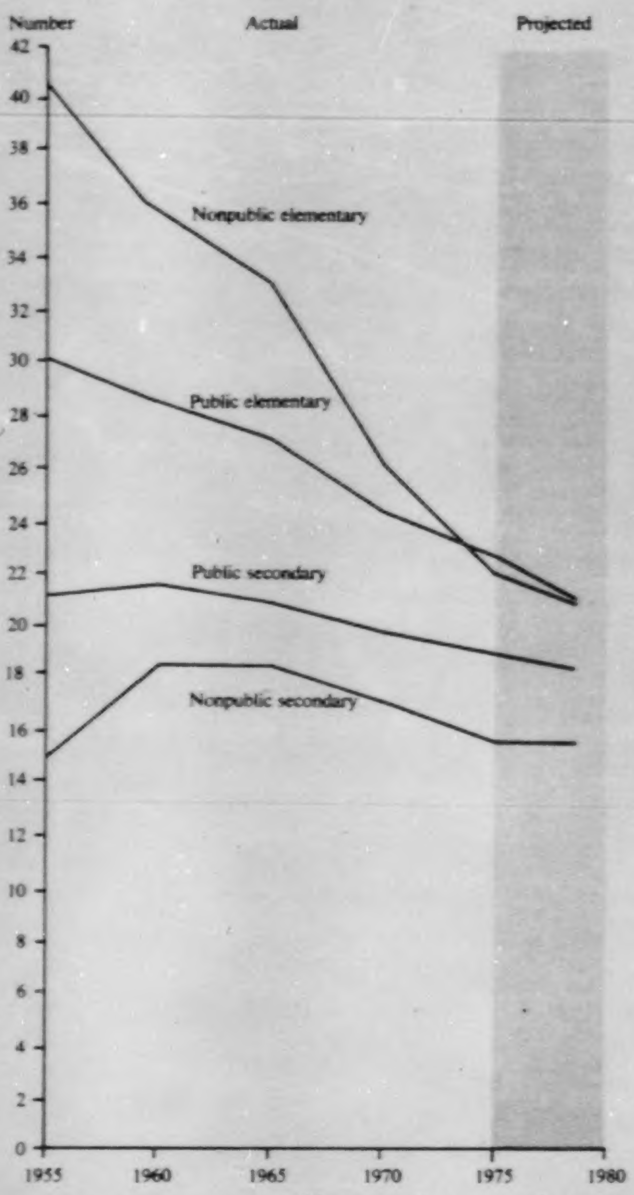
SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems, 1973-74.*

The pupil-teacher ratios for elementary and secondary schools will continue to decline in the immediate future.

See Table 6.4

Chart 6.4

Pupil-Teacher Ratios in Public Elementary and Secondary Schools



The excess supply of new teachers is expected to continue into the 1980's.

See Table 6.5

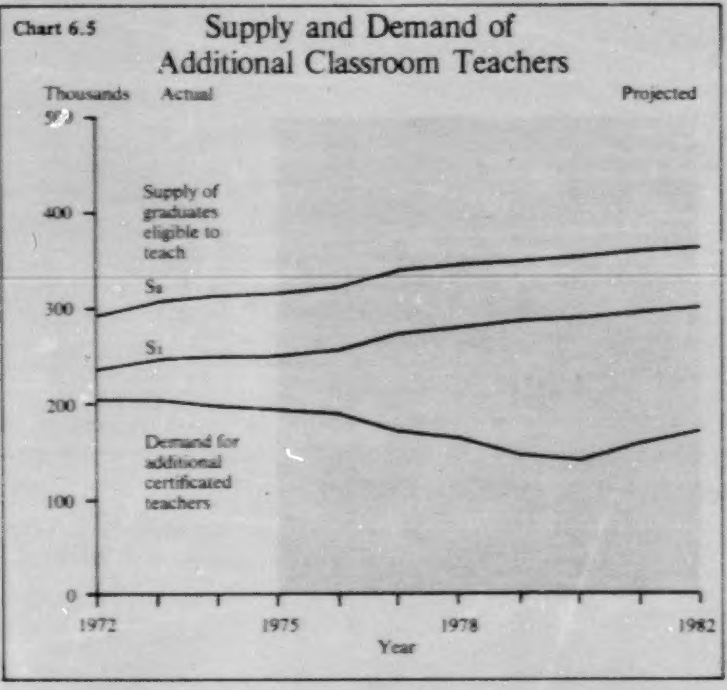


Chart 6.5 Supply and Demand of Additional Classroom Teachers

Membership in one teacher's union more than quadrupled in 10 years.

See Table 6.6

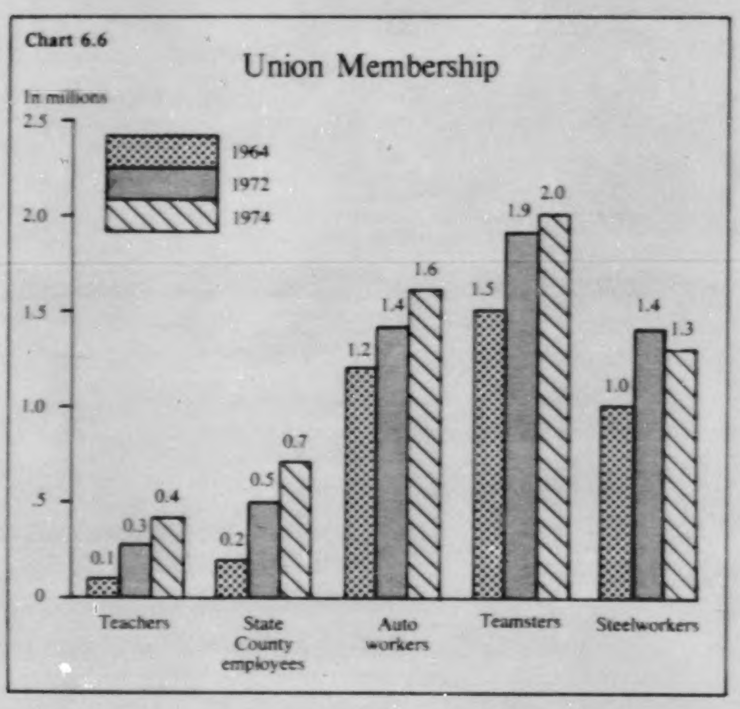


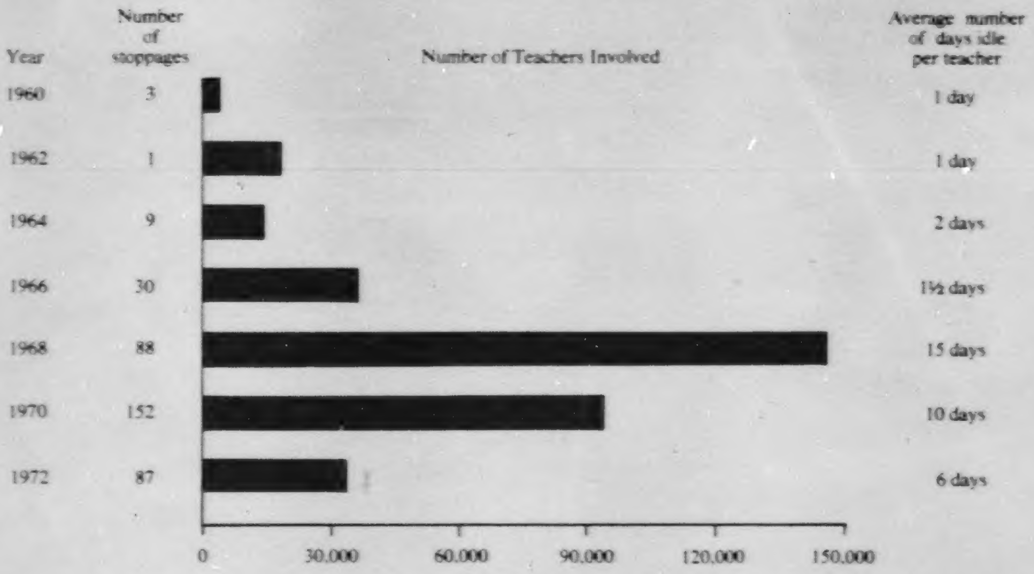
Chart 6.6 Union Membership

Teacher involvement in work stoppages reached a high of 145,000 teachers in 1968.

See Table 6.7

Chart 6.7

Teacher Involvement in Work Stoppage

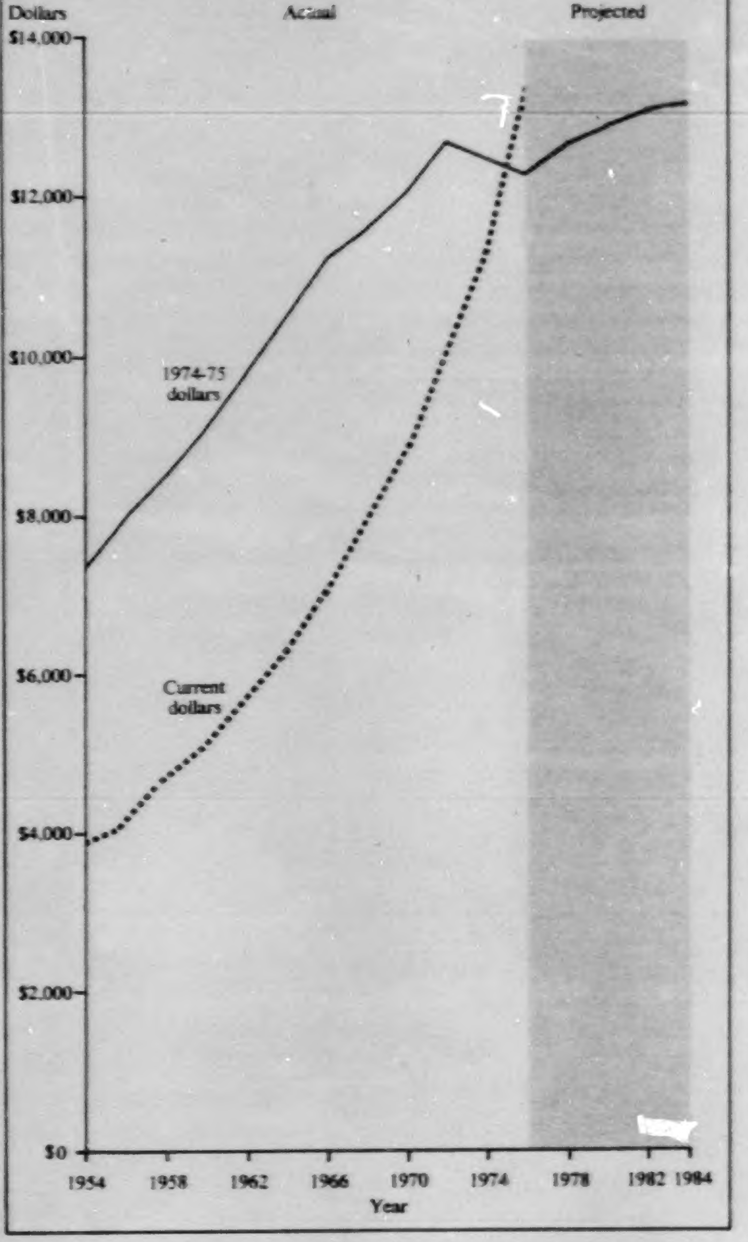


Average public elementary and secondary school teacher salaries have declined in constant dollars in the last 2 years.

See Table 6.8

Chart 6.8

Average Salaries of Instructional Staff



Average teacher salaries for many States have declined in constant dollars since 1969-70

Chart 6.9

Average Salaries of Instructional Staff, by State

State or other area	Adjusted dollars (1974-75 purchasing power)[2]		
	1959-60	1969-70	1974-75[3]
United States	$9,121	$12,123	$12,070
Alabama	7,055	9,537	9,503
Alaska	12,099	15,076	16,906
Arizona	9,854	12,308	11,168
Arkansas	5,808	8,535	[4] 9,028
California	[5]11,634	13,687	14,915
Colorado	8,809	10,834	11,554
Connecticut	10,591	12,891	12,051
Delaware	[5]10,226	12,754	12,110
District of Columbia	11,070	15,188	14,716
Florida	8,955	11,794	10,780
Georgia	[6]6,882	10,110	10,641
Hawaii	9,501	13,479	13,665
Idaho	7,432	9,952	9,573
Illinois	10,248	13,646	13,469
Indiana	9,769	13,120	11,358
Iowa	[5]7,104	11,245	10,596
Kansas	[5]7,844	10,712	9,770
Kentucky	5,865	10,456	9,240
Louisiana	8,775	9,982	9,808
Maine	6,512	11,052	13,202
Maryland	9,796	13,556	13,282
Massachusetts	[5]9,775	12,583	12,468
Michigan	9,967	13,385	14,224
Minnesota	9,259	13,655	12,851
Mississippi	5,842	8,245	8,338
Missouri	[7]7,996	11,096	10,257
Montana	[5,7]7,800	11,108	10,168
Nebraska	6,833	10,772	9,765
Nevada	10,036	13,287	12,854
New Hampshire	7,853	10,996	10,086
New Jersey	[8]10,349	13,028	([9])
New Mexico	9,487	11,143	[10]10,200
New York	11,525	13,988	15,000
North Carolina	7,365	10,620	11,275
North Dakota	6,514	9,463	9,176
Ohio	9,033	11,786	11,100
Oklahoma	8,233	9,790	9,108
Oregon	9,757	12,617	10,958
Pennsylvania	[8]9,357	12,343	12,286
Rhode Island	9,694	12,285	12,883
South Carolina	6,082	9,600	9,770
South Dakota	6,566	9,188	8,860
Tennessee	6,926	9,998	9,878
Texas	8,299	10,298	10,136
Utah	8,983	11,838	10,150
Vermont	7,873	11,280	9,286
Virginia	[8]7,601	11,245	11,279
Washington	9,947	13,028	12,538
West Virginia	6,967	10,765	9,124
Wisconsin	[11]8,585	12,548	13,046
Wyoming	8,703	11,701	10,350
Outlying areas:			
American Samoa	1,502	7,035	5,100
Canal Zone	10,637	14,263	16,198
Guam	7,240	10,897	17,980
Puerto Rico	4,161	([9])	([9])
Virgin Islands	6,006	([9])	11,154

[1] Includes supervisors, principals, classroom teachers, and other instructional staff.

[2] Based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

[3] Estimated.

[4] Includes professional noninstructional administrative staff.

[5] Partly estimated.

[6] Excludes kindergarten teachers.

[7] Includes clerical assistants to instructional personnel.

[8] Includes attendance personnel.

[9] Data not available.

[10] Salary data reported as median salary.

[11] Excludes vocational schools not operated as part of the regular public school system.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems* and *Statistics of Public Elementary and Secondary Day Schools, Fall 1974.*

Both teachers and other specialized instructional staff participate in federally funded staff training programs.

See Table 6.10

Chart 6.10

Federal Expenditures for Staff Training

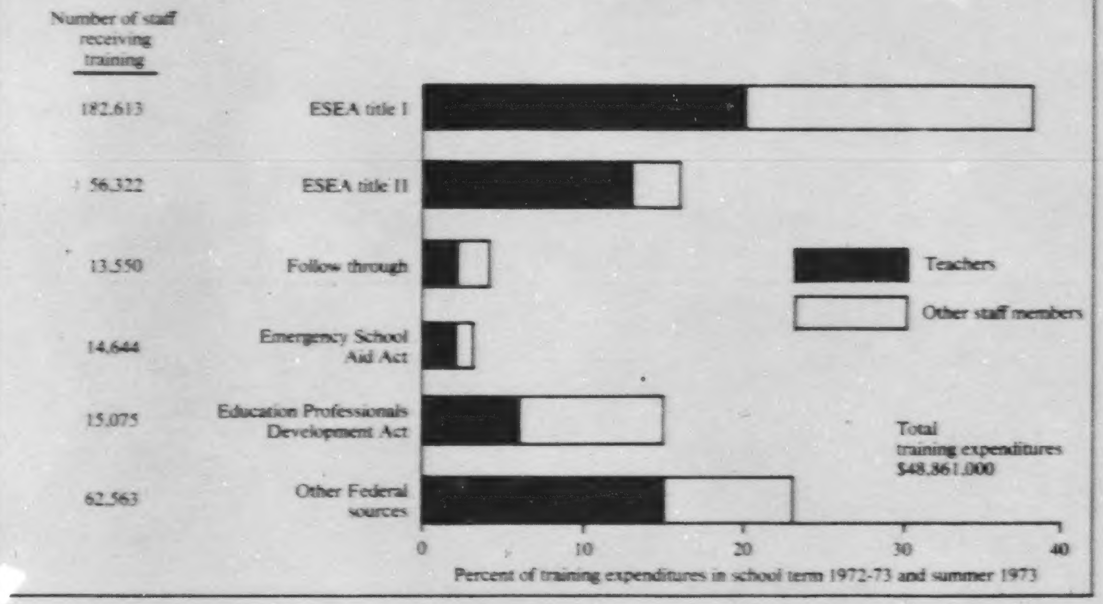
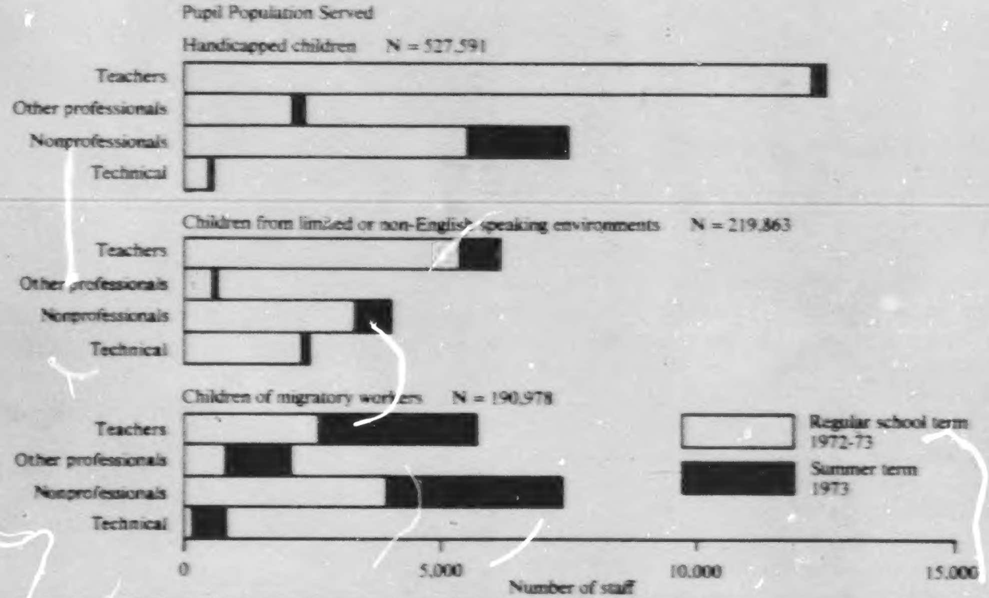


Chart 6.11

Staff Assigned to Federally Aided Programs



Staff assigned to federally funded programs have served the needs of a variety of pupil population groups.

See Table 6.11

Postsecondary Education Staff

The diversification of staff in postsecondary education probably exceeds that of elementary and secondary education staff. Postsecondary institutions exhibit variation in programs and structure; the higher education sector differentiates among teaching staff by rank. Consequently, the use of averages as indices of any sort of trend are apt to be misleading.

Since statistics are most complete for the higher education sector of postsecondary education, they will receive greatest emphasis. Of full-time instructional faculty in institutions of higher education in 1975-76, 103,000 were in universities, 125,000 in other 4-year institutions, and 61,000 in 2-year institutions. The distributions by academic rank and sex are of particular interest. The greatest number at one rank is 83,000 for assistant professors; in contrast, there were 65,000 professors, 69,000 associate professors, 54,000 instructors, and 4,000 lecturers. This concentration of faculty in junior ranks may be one consequence of the recent, rapid growth of enrollment in higher education which generated a need for the increase in total instructional staff reported in chapter 1.

Demands for equal occupational status by females have been strongly articulated at higher education institutions, where, traditionally, males have comprised substantially greater proportions of the faculty at each rank. Between 1962-63 and 1972-73, the percent of staff that was female rose 20.6 percent in all ranks (chart 6.13). The proportion has since increased slightly to 24.2 percent in 1975-76 (table 6.13). The largest percentage changes in females have been among instructors, rising from 30.9 percent in 1962-69 to 43 percent in 1972-73 and dropping to 40.5 percent in 1975-76. Female representation in other ranks stayed virtually constant between 1962-63 and 1972-73. The drop in the proportion of female instructors occurred simultaneously with increases in percentage of females in the ranks of assistant professor (from 23.1 to 28.6 percent from 1972-73 to 1975-76), associate professor (from 15.8 percent to 16.8) and full professor (9.4 to 9.8 percent). Proportionate representation of females was higher in publicly controlled universities than in private universities in 1975-76; female representation was, in contrast, higher for privately controlled other 4-year institutions and 2-year institutions than for public institutions (chart 6.14).

Collective bargaining has become more prevalent in institutions of higher education. By July 1975, there were 431 campuses with official bargaining agents (chart 6.15); of the total, 375 were public and 56, private. More of the campuses were 2-year (274) than 4-year (157). Of these campuses, 360 had negotiated contracts or were in process of negotiations.

Average faculty salaries have risen since 1961-62, but the patterns of increase have been distinct for types of institutions and ranks. For universities, average professorial salaries have doubled, from $11,240 to $22,514 in 1974-75 (chart 6.16). Instructors' salaries rose from $5,650 to $10,737 during the same time, not quite doubling. The pattern of increases in faculty salaries for other 4-year institutions shows less dramatic increases for all ranks, with the average salary for professors in 1974-75, $18,875, below that for university professors, $22,514. Salaries of faculty at 2-year institutions, where ranking is less often used to differentiate staff, display smaller differences.

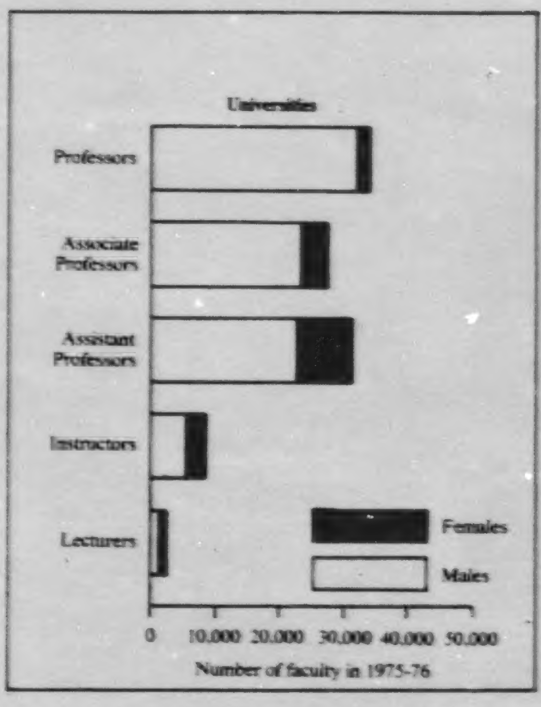
The numbers of staff in institutions of higher education may be compared with the staff of noncollegiate postsecondary schools with occupational programs. In 1972-73, there were 251,897 full-time instructional faculty in institutions of higher education, compared with 43,323 full-time instructional faculty in noncollegiate schools (table 6.17). Part-time employees make up a sizable portion of the staff of these noncollegiate schools; the 21,625 part-time instructional staff in 1973 would raise the total to 64,948 (table 6.17).

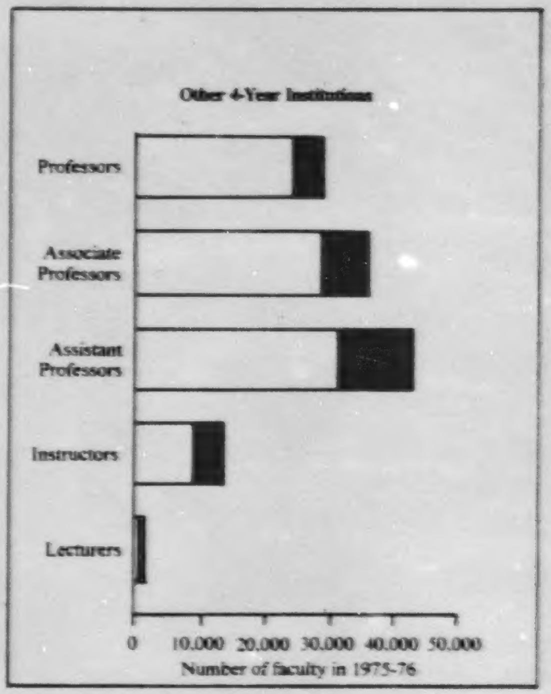
Female representation is small in all faculty ranks, particularly in universities.

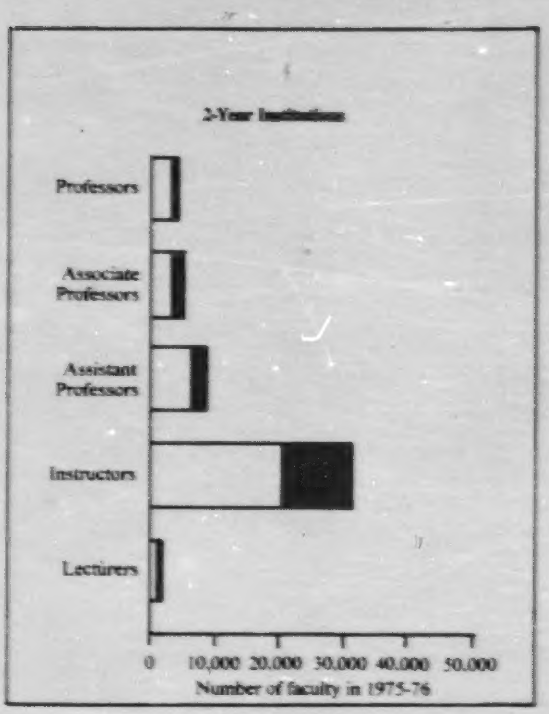
See Table 6.12

Chart 6.12

Number of Full-Time Instructional Faculty





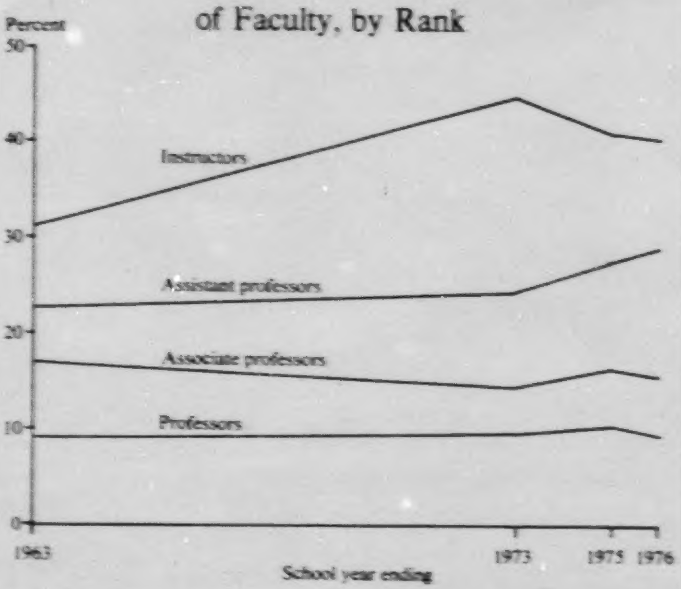


There have been minor increases in the percent of females in faculty ranks since 1972-73.

See Table 6.13

Chart 6.13

Females as a Percent of Faculty, by Rank

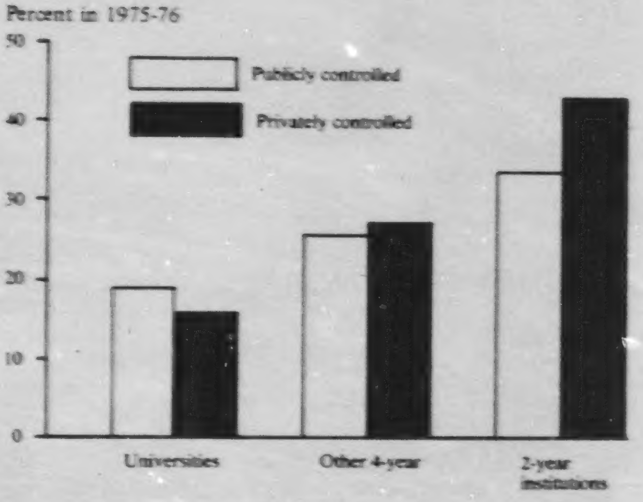


Females constitues a higher proportion of the faculty in 2-year institutions than in universities or other 4-year institutions.

See Table 6.14

Chart 6.14

Females as a Percent of Faculty, by Institution

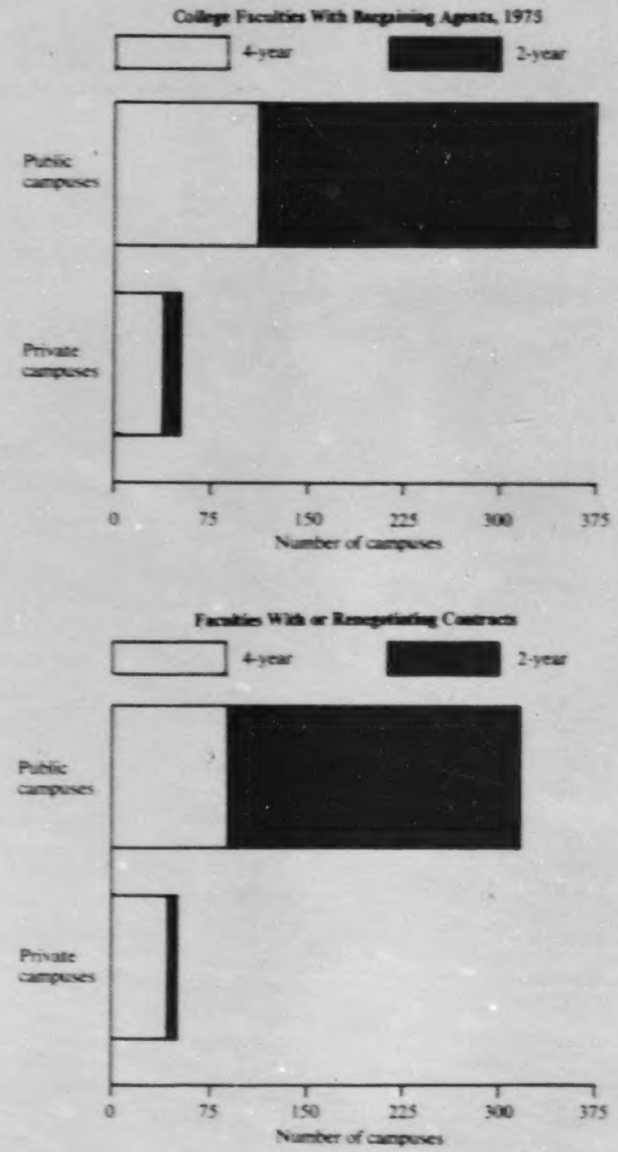


Collective bargaining agreements have been entered into by more 2-year than 4-year institutions.

See Table 6.15

Chart 6.15

Collective Bargaining in Higher Education

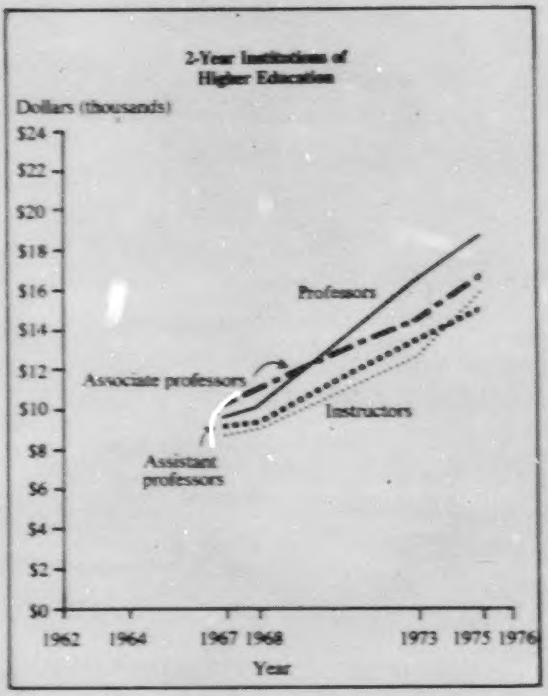


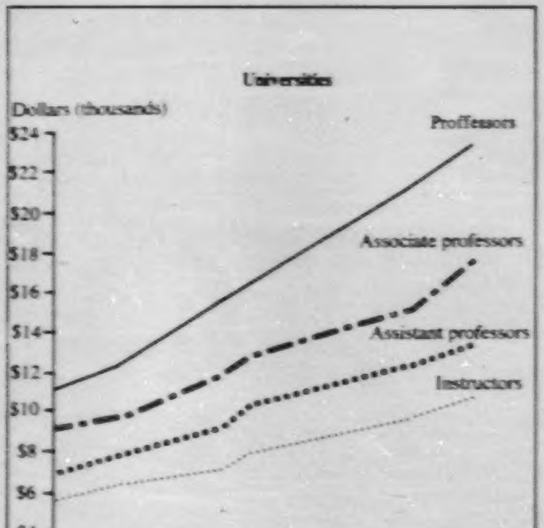
Average salaries display a wider range among university faculty than among faculty at other 4-year or 2-year institutions.

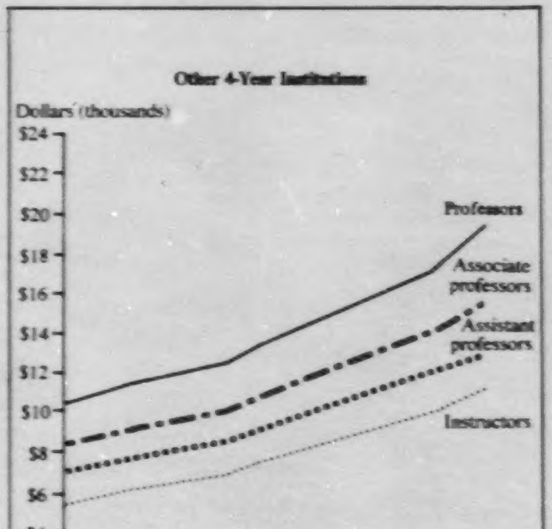
See Table 6.16

Chart 6.16

Average Salaries of Full-Time Instructional Staff





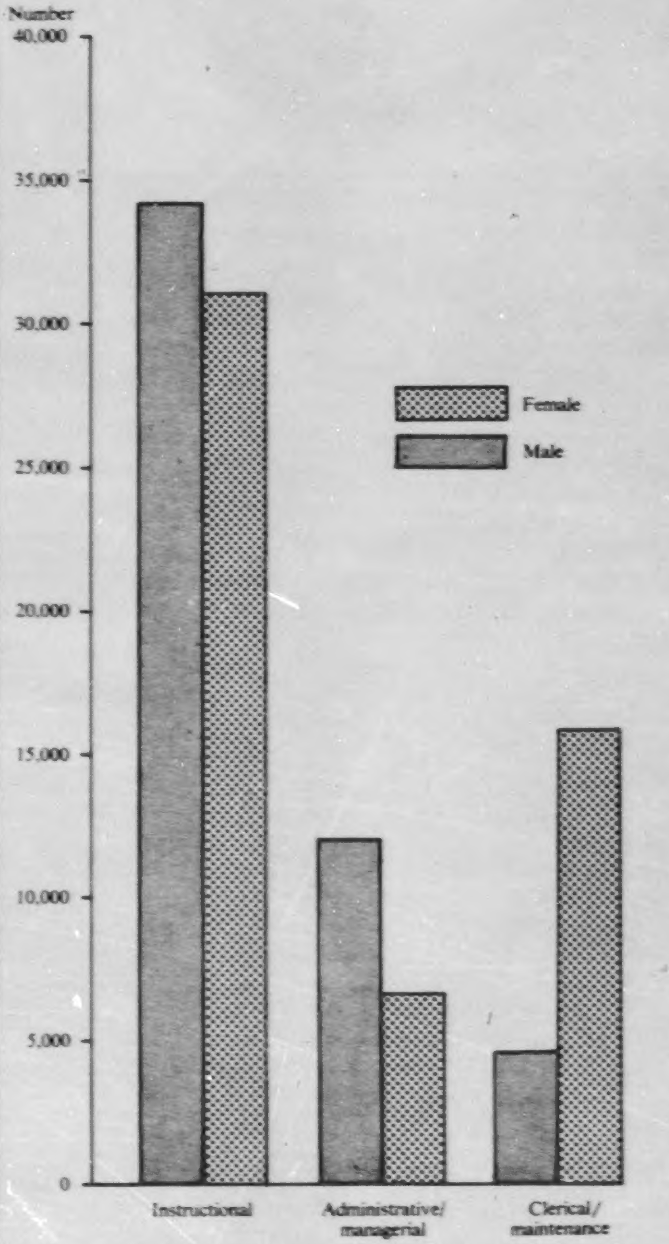


Over 52 percent of the instructional staff in noncollegiate postsecondary schools are male.

See Table 6.17

Chart 6.17

Staff in Noncollegiate Postsecondary Schools



Chapter 7

Elementary and Secondary School Finance

Education in American society was highly valued by the Nation's early leaders. Yet, education along with other essential social services was not mentioned in the United States Constitution, and consequently, education became a responsibility of State and local governments. New States were required to provide for education in their constitutions, but there was no uniformity in approach. In fact, many States, while mentioning education in their constitutions, followed the National Government practice of relegating the function to lower levels of government. In some States, leaders such as Horace Mann focused early attention on the vital role of States in leading local government to better education. But education remained essentially a local responsibility. The trend was to avoid superimposing education from above and toward local initiative in education.

The Northwest Ordinance of 1787 and subsequent Congressional action provided land grants to States for the support of schools. Ironically, these national actions were not followed by similar State legislation and the general practice in educational leadership became legislative authorization to local school units to levy taxes for education. No integrated State school finance plans were developed until the 1920's. In fact, the beginnings of State concern for school finance emerged as an issue at about the same time that completion of secondary education became the accepted norm in society.

Development of School Finance Plans

The period 1910–1930 marked the beginning of organized study of State school finance systems. Interest in finance systems was heightened by dramatic changes affecting the costs of education:

- A near doubling of the proportion of the population graduating from high school each decade;
- Major increases in the number and salaries of teachers; and
- Continual increases in the length of the school year and number of days each pupil attended.

These conditions combined to create great differences in the ability of school districts to finance schools from local resources. The importance of land in an agrarian society led State and local officials to assume that revenues for the education of children should be related to land values, ownership providing a measure of ability to pay. Such assumptions were not applicable to an urban-suburban, industrialized society.

The most important fiscal trend was a drastic decline in the proportion of school revenues from non-local sources, *despite* a constant increase in availability of absolute State and Federal funds (chart 7.1). (This trend was important to the first wave of school finance reform.) Although State assistance increased from about $30 million in 1890 to over $350 million in 1930, the percentage of total revenue from the States decreased from 20.9 percent to 17.0 percent.

School finance plans adopted by almost all States followed what was termed the foundation program pattern. The basic concepts of the plan are articulated in the following quotation:

> Theoretically all the children of the State are equally important and are entitled to have the same advantages; practically this can never be quite true. The duty of the State is to secure for all as high a

> minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand.[1]

These statements emphasize the continual *local* control of education but suggest also the trade-offs between uniform guarantees by the States and local fiscal control. The key idea, even in 1905, was *equalization of educational opportunity.*

A study of school finance in 1923 added to the ideal of equalization of educational opportunity the important concept of equalization of local tax rates for school support. These two ideas still furnish the basic principles by which school finance reform is gauged today.

A period of intensive reform, through World War II, changed the proportional sources of support for public schools from 17-percent State support in 1930 to nearly 40 percent in 1950. The percentage of State support has not changed markedly since 1950, and stood at 41.7 percent in 1974 (chart 7.1). There is, of course, still considerable variation in proportional shares of support within States.

By the end of World War II each State had evolved a system and, in most cases, had had at least a decade of experience with the system. Most adaptations of the foundation plan depended upon a property tax. During the 1930's many States adopted a sales tax which supplied another source of State support, but one which was more likely to be affected by general economic conditions.

The war years provided a period of economic relief from the depression, consolidation of school-district administrative units, and a flattening of enrollment growth. It was not until after 1950 that the national enrollment in elementary and secondary schools equalled that of 1930.

Beginning in the mid-50's, pressures resulting in a demand for reform in school finance were exerted by several social and demographic factors.

- Enrollment resumed the trends of the 1920's due to an increasing birth rate and higher rates of high school completion.
- Heavy interstate and intrastate movement of population, which began during the war, continued and accelerated urbanization. This reduced the rural population and created school finance problems associated with a population largely in urban and suburban districts.
- The property tax base grew less useful as a measure of ability to pay taxes.
- The civil rights movement and related activities focused attention on unequal education and opportunity.
- The spiral of postwar inflation increased education expenditures more rapidly than the general cost of living.
- Public demand for other social services rivaled demands for education.

Direct motivation for reform was derived from the impact of these factors upon the educational enterprise. The postwar period was characterized by a need for extensive funding of capital outlays to meet growing and more mobile enrollment and by a lag in replacement of school buildings, caused by the depression and war. In many States, capital needs threatened to replace current costs as the primary concern. The measures to keep foundation program formulas adequate for growing needs were not changed frequently or dramatically enough to keep the levels of State support equal to the effects of inflation and growing enrollment.

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[1] Elwood P. Cubberly, *School Funds and Their Apportionment* (New York: Teachers College, Columbia University, 1905).

Into the 1950's, the courts maintained a nonintervention stance on State school finance legislation (chart 7.2). This position was stated in a 1912 Maine Supreme Court decision:

> The method of distributing the proceeds of such a tax rests in the wise discretion and sound judgement of the legislature. If this discretion is unwisely exercised, the remedy is with the people, and not with the court . . . We are not to substitute our judgement for that of a coordinate branch of government working within its constitutional limits. (*Sawyer v. Gilmore*, 109 Me. 169 83 A 673 (1912)).

The position was reinforced in a 1954 U.S. Circuit Court decision:

> In the absence of constitutional regulation the method of apportioning and distributing a school fund, accruing from taxes or other revenue, rests in the wise discretion of the State legislature, which method, in the absence of abuse or discretion or violation of some constitutional provision, cannot be interferred with by the courts . . . (*Hess v. Mullaney*, 15 Alaska 40, 213 F. 2nd 635 (USCA, 9th cir. 1954)).

A significant change in the nonintervention stance of the courts occurred in three decisions between 1954 and 1963. First, in the decision usually thought of in the context of school desegration (*Brown v. Board of Education*), the U.S. Supreme Court described education as (1) perhaps the most important function of State and local government, and (2) a "right" which must be made available to all on equal terms:

> Today, education is perhaps the most important function of state and local government . . . In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms. (*Brown v. Board of Education*, 347, U.S. 483 (1954)).

In two other cases (*Baker v. Carr*, 369, U.S. 186 (1962); *Gray v. Sanders*, 372, U.S. 386 (1963)), not directly related to school finance, the U.S. Supreme Court held "suspect" and applied "strict scrutiny" to challenged State legislative reapportionment plans. The "strict scrutiny" was warranted, since the court held that the State's legislation impinged on a constitutionally protected right. In these cases, the court held that to classify persons on the bases of wealth, location, homesite, or occupation was unreasonable.

These court decisions between 1954 and 1963 contributed to a new rationale that challenged existing school finance systems. This new rationale contained three significant elements. First, education is a constitutionally protected right under the 14th amendment. Second, States must show a compelling interest to be served by maintaining school-finance classification systems based on wealth and location and which impinge on the constitutionally protected right of education. Third, education is a State responsibility requiring the availability of the State's full resources to provide equal opportunities for education to all of the State's children.

Legal principles emerging from this rationale were (1) a reaffirmation of the established legal principle of State responsibility for education, (2) "fiscal neutrality," asserting a child's education should depend on the full wealth of the State as opposed to local school district wealth, and (3) the application of "strict" judicial scrutiny to school finance challenges, since the legislation under question impinged on a constitutionally protected right.

The new rationale laid the groundwork for a challenge to State school finance plans. In *Serrano v. Priest* (California Supreme Court, 1971), the court accepted education as a fundamental interest, and rejected the State's claim that a compelling interest served by the present State aid system was that of strengthening and encouraging local control of education. In effect, the court said that a statutory classification that makes the quality of a child's education dependent on the wealth of a school district is unconstitutional (*Serrano v. Priest*, 5 Cal. 3d 584, 487 P. 2d 1241 (1971)).

Although a State case, *Serrano v. Priest* was of national interest because many State school finance programs resembled the California plan. A minimum foundation program is one that provides State funds to school districts inversely to their property wealth per unit of need (chart 7.3). Districts with a relatively high assessed valuation behind each pupil receive lesser apportionments of State aid per pupil than do the low assessed valuation per pupil districts. The difference between the State foundation level and local district spending is defined as "local leeway," to be met totally by locally levied school-district property taxes.

The possibilities of spending more and taxing less, under the typical minimum foundation program, are illustrated in chart 7.4 for three hypothetical school districts operating under a typical State program. In this example, the State foundation level is $600 per pupil, the mandated uniform local tax rate is 10 mills ($10 per $1,000 assessed valuation), and the actual spending levels range from $3,000 to $900 per pupil. District C (wealthy) spends twice as much per pupil as District A (poor), but taxes itself at one-fifth the rate of District A.

This comparison, while hypothetical, illustrates the situation faced by many districts at the time of the Serrano decision. Because of inadequately defined foundation program levels and the provision of local leeway, combined with disparities of unlimited local property wealth per pupil among districts, inequities existed. The traditional minimum foundation programs did reduce the magnitude of inequities but did not eliminate them.

State education funds are not, of course, all delivered through the minimum foundation programs. Many States provide "flat grants" to school districts regardless of wealth and need, but these grants can create further disparities in local tax effort.

Several months after the Serrano decision, a U.S. district court arrived at a similar decision (*Rodriquez v. San Antonio*) regarding the Texas school finance system—a decision also based on State constitutional provision and the 14th amendment. This decision was appealed, and the U.S. Supreme Court disagreed that education was a fundamental interest. This meant the Texas classification plan for apportioning State aid was not suspect and did not require the strict scrutiny of the Court. Further, since the State did not have to show a compelling interest in maintaining the school finance system, the court ruled:

> The consideration and initiation of fundamental reform with respect to state taxation and education are matters reserved for the legislative processes of the various states, and we do no violence to the values of federalism and the separation of powers by staying our hand. (*Rodriquez v. San Antonio School District*, U.S. Supreme Court, 71-1322 (1973)).

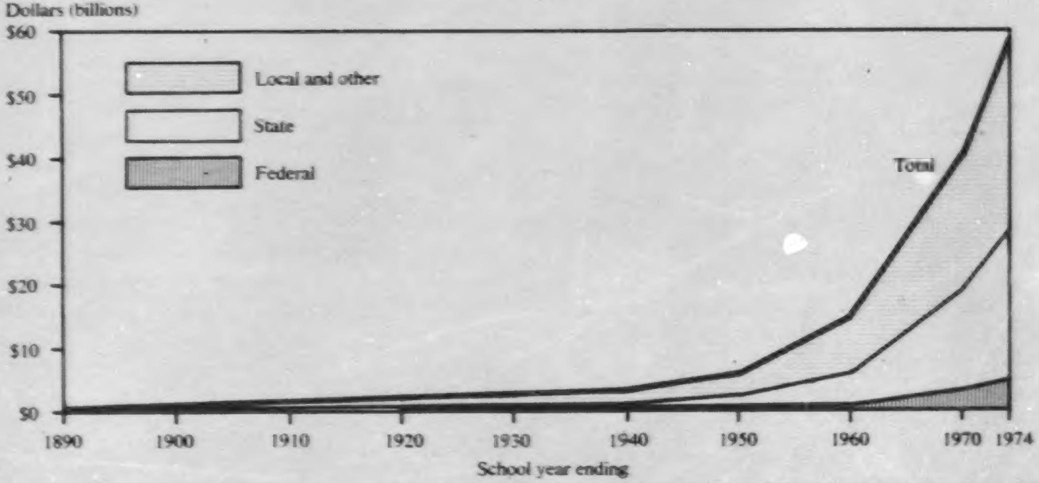
From 1971 to 1974, a total of 27 school finance court cases were filed in 23 States. The future judicial routes to change and reform in school finance will most likely be through the State court systems. In addition to containing constitutional provisions similar to the 14th amendment, State constitutions do define education as a State responsibility and imply a fundamental interest, as opposed to the Federal Constitution, which does not contain any reference to education. While the Rodriquez decision did not impose immediate reform, the court decision did cite the responsibility of the legislative branch to provide adequate and equitable school finance systems.

States have contributed increasing percentages of the revenue receipts for public schools, reaching 41.4 percent in 1973-74.

See Table 7.1

Chart 7.1

Revenues of Public Elementary and Secondary Schools



The Courts have scrutinized State and local responsibilities for the support of schools.

Chart 7.2

Court Decisions Affecting School Finance

1912 *Sawyer v. Gilmore* (Maine)
Distribution of tax monies is the responsibility of the Legislature, not of the court.

1954 *Hess v. Mullaney* (Alaska)
The discretion of the State legislature in distributing funds for schools cannot be interfered with by the courts.

1954 *Brown v. Board of Education of Topeka*
Education is a constitutionally protected right to be provided equally to all.

1962 *Baker v. Carr*, and
1963 *Gray v. Sanders*
State legislation that impinges on constitutionally protected rights will be given the strict scrutiny of the court and require a compelling State interest to maintain. Classification schemes of wealth, location, and race are not reasonable schemes for reapportioning State legislatures.

1971 *Serrano v. Priest* (California)
The California school finance plan violates the equal protection clause of the State constitution and the 14th Amendment. Education is a fundamental interest, constitutionally protected, and the full wealth of the State must be used for the education of all children.

1971 *Van Dusartz v. Hatfield* (Minnesota)
A Federal court accepts the Serrano decision and the principle of fiscal neutrality. The Minnesota school finance plan is ruled unconstitutional.

1971 *Pennsylvania Ass'n for Retarded Children v. Pennsylvania* (Pennsylvania)
Placement of handicapped students "in a special public school class is preferable to placement in any other type of program of education and training."

1972 *Mills v. Board of Education* (District of Columbia)
Serving the needs of handicapped students through "placement in a regular public school class with appropriate ancillary services is preferable to placement in a special public school class."

1972 *Robinson v. Cahill* (New Jersey)
A New Jersey State court uses the Serrano arguments and decision to find the New Jersey school finance plan unconstitutional.

1972 *Spano v. Board of Education* (New York)
A New York State court rejects the arguments of Serrano and refuses to intervene in a legislative matter of apportioning State aid to New York school districts.

1972 (1) *Rodriguez v. San Antonio* (Texas)
A Federal court rules the Texas school finance unconstitutional. The decision was appealed to the U.S. Supreme Court.

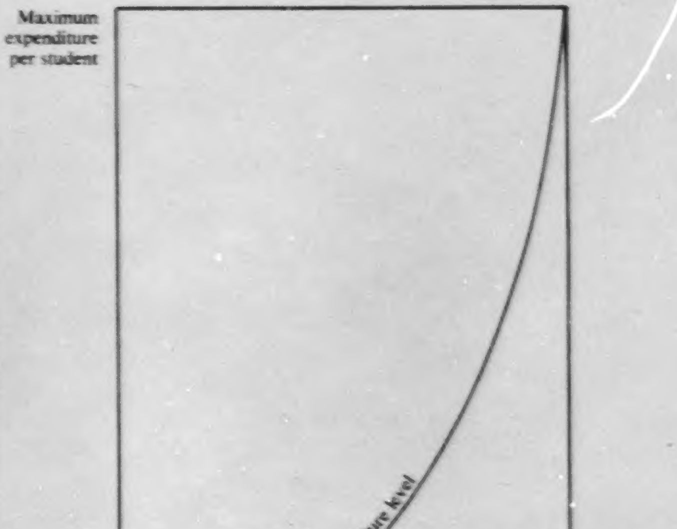
1973 (2) *Rodriguez v. San Antonio Board of Education*
The U.S. Supreme Court reverses the lower Federal court decision. The court does not accept education as a fundamental interest and does not require a compelling State interest to maintain the Texas classification scheme for apportioning State school aid. The court's majority opinion and several minority opinions do emphasize the importance of education and State responsibility to effect adequate and equitable finance systems.

The foundation program of school finance guarantees school districts a minimum support level, which they may exceed if they wish.

See Table 7.3

Chart 7.3

Revenue Sources for School Districts

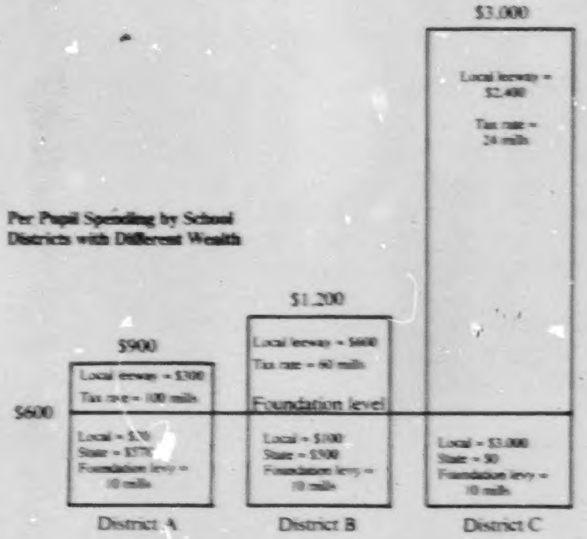


Under the foundation program it is possible for wealthy districts to have high expenditures per pupil, yet low tax rates.

See Table 7.4

Chart 7.4

Operation of the Foundation Program



Revenues for school districts with different wealth

	District A	District B	District C
Total expenditures per pupil	$ 900	$ 1,200	$ 3,000
State aid per pupil	570	500	0
Local support per pupil	330	700	3,000
Assessed valuation per pupil	3,000	10,000	100,000
Total millage levy	110 mills	70 mills	34 mills

Effects of Changes in School Finance

State legislative responses to school finance problems have been diverse. Each State is faced with vastly different legal, social, and administrative organization patterns. However, even with this inter-State diversity, general patterns of change have emerged.

A major feature of change and reform has been the movement away from general aid appointments to categorical program funding within State school finance plans. The traditional general aid approach permits wide discretion at the local level in program choices, staffing, and expenditure arrangements. The categorical funding approach mandates programs with variations in the extent of discretion overspending which is given to local districts.

The new rationale raised questions about unequal spending and taxation levels among school districts as they affected educational equity for children. Education was defined as a State function of primary importance delivered to assure equal opportunities for all persons. The new rationale required more equalization of educational programing among State school districts.

Whether equal district spending ever results in equal opportunities is questionable. Per-pupil expenditures vary among districts for reasons other than education (chart 7.5). Small pupil-enrollment districts require larger staffing ratios and higher teacher costs per pupil. Declining pupil-enrollment districts have higher levels of experienced teachers and consequently higher salary costs. Some school districts have proportionately larger or smaller secondary pupil enrollments. Since the levels of spending for secondary programs are higher, in general, spending variations are associated with enrollment distributions. Furthermore, in many States the school districts maintain necessary small school units, which require higher spending.

Attaining equalized school property tax rates is constrained further by the practice of permitting variable property tax-assessment ratios within a State. Where the property-assessment administration is decentralized, numerically equal tax rates may be unequal.

While States have taken different approaches to change and reform, they have focused on common goals:

- To reduce per-pupil spending disparities among districts.
- To reduce school property tax rate disparities among districts.
- To decrease reliance on locally levied property tax revenues.
- To permit low-spending and low-taxing districts to "move up."
- To require and fund local educational programing in special areas of handicapped children programs, vocational education, bilingual-bicultural programs, transportation, etc.

The results of pursuing these goals are visible. By 1973, 10 States had made significant changes in their school finance programs. While it is too early to fully assess long-term effects, some short-term effects have been:

- State apportioned school revenues increased substantially.
- New State aid is tied to property tax relief. In other words, new State money replaced local property tax revenues and did not automatically result in increased local expenditures.
- Tax rates and spending disparities were reduced. Higher State aid levels, restricted local leeway, and special treatment to poor districts have reduced local tax rates and variance from the average tax rate. Restrictions on local leeway, along with stimulation of poor, low-spending districts, have narrowed the gap.
- Special purpose (categorical) funding increased along with accountability measures to assure implementation, performance feedback, and effectiveness.
- Special provisions have made for property tax relief for such groups as the poor, the elderly, and fixed-income groups.
- A statewide property tax has been used as a means of equalizing tax efforts through collection and disbursement processes.

The major 1971-1973 court decisions affecting school finance were immediately followed by change and reform facilitated by improved State fiscal conditions. State budget surpluses, swelled by greater Federal assumption of welfare costs and by Federal revenue sharing with State and local governments, permitted change and reform without confronting the issue of new and increased taxes for education. During this period, significant changes were made in some State school finance programs. Now, with increasingly difficult economic conditions and dwindling state budget surpluses, the change and reform pace has slowed.

School finance reform will continue. In the late 1970's and 1980's under unique demographic conditions, as already observed, the number of people in school-age groups will decline. This period will see the growth of the labor force in relation to the school-age population. The number of employed persons per student enrolled in public elementary and secondary schools will increase. In sum, through the 1980's, there will be relatively more people to share school costs.

As enrollment declines, the number of staff members will probably decline, but not at the same rate. The numbers of teachers and other staff in 1983 are expected to be about equal to numbers in 1973. Furthermore, these teachers and other staff are expected to have greater seniority, resulting in a higher level of salaries even without inflation.

There is no reason to expect general inflation or educational inflation to interrupt the post-World War II trend. Consequently, costs *in 1973-74 dollars* are expected to rise 36.5 percent between 1973 and 1983 and per-pupil cost to rise at the higher rate of 47 percent (chart 7.6). These will impose demands on the economic and political life of the Nation, the States, and local districts responsible for school finance.

Expenditures per pupil by States have undergone considerable change, even since 1970. The range of average expenditures among the States in 1970 was from a low of $503 to a high of $1,420, or a difference of $817 (chart 7.7). After 5 years of expenditure increases for all States, the range in 1975 was $1,112, from $933 to $2241. The increases clearly did not have the effect of leveling expenditures; equalized expenditures still may not provide equal services because the education dollar does not purchase the same thing in different geographic areas (chart 7.8).

Variations in per-pupil expenditures by school districts are greater by status of metropolitan area than by district size. Percentage distributions of per-pupil expenditures for 1973-74 are similar for districts with enrollments of 25,000 and over and under 2,500 (chart 7.9). Median expenditures for the larger districts are $995; for the small districts, $1,008. Greater differences may be observed in districts of similar size but differing metropolitan status. Among large districts (enrollments of 25,000 and over), median expenditures were $1046 for those in central metropolitan areas. Only among districts in the smallest category by size (enrollments under 2,500) did expenditures of nonmetropolitan districts exceed those of metropolitan districts.

Any change in property-tax administration will affect school finance reform in the future. While the property tax will probably not be eliminated as the basis for financing the schools, there may be efforts to secure greater uniformity in rates, assessment practices, and definitions of the base itself. Education remains the largest service of local governments and the largest function for which States provide financial support. However, the financial burden of such services as welfare and health will increase faster than expenditures on education, indicating potential competition for future funds.

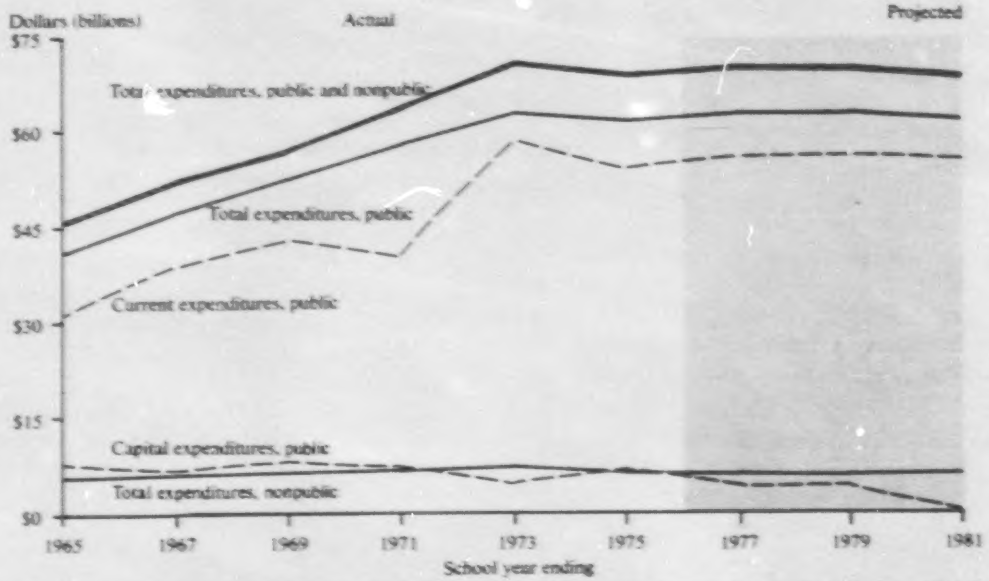
As school finance is debated in the 50 States and 16,600 school districts, and as the realization that it is also a national concern increases, the Federal Government may be expected to play two roles: (1) A promoter of study and action by the States. Provisions of recent Federal education legislation, such as Sec. 842 of P.L. 93-380 authorizing technical assistance to States in developing and administering school finance plans, have contained inducements to States to improve equalization of educational expenditures. (2) A direct provider of financial support for States and districts in the form of categorical aid and revenue sharing, a form of inter-State equalization.

Total expenditures of public schools have now leveled off at about $62 billion in constant dollar.

See Table 7.5

Chart 7.5

Expenditures of Elementary and Secondary Schools

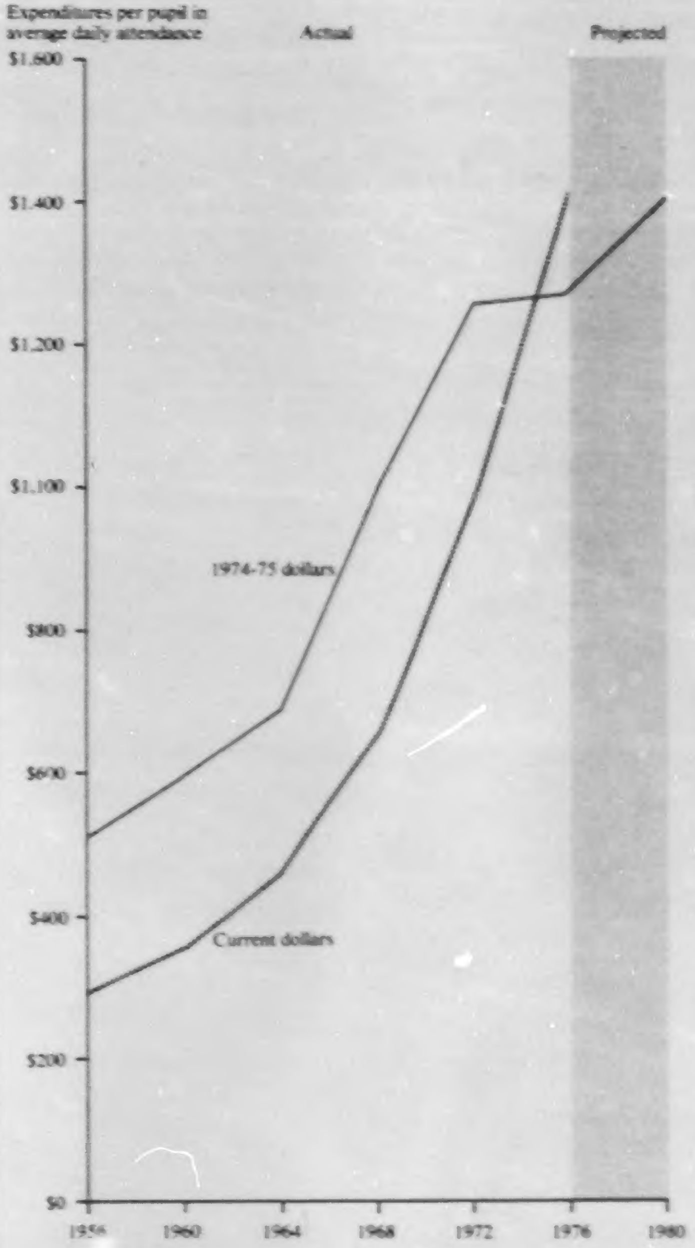


Current expenditures per pupil will continue to rise, even in constant dollars.

See Table 7.6

Chart 7.6

Current Expenditures of Public School Systems



The range in expenditures per pupil in public schools by States has increased since 1969-70.

Chart 7.7

Expenditures for Public Elementary and Secondary Education

State	Total expenditures per pupil[1]				
	1969-70	1970-71	1972-73	1973-74	1974-75
United States	**$ 926**	**$1,008**	**$1,182**	**$1,281**	**$1,431**
Alabama	503	572	630	790	933
Alaska	1,416	1,897	1,961	2,102	2,228
Arizona	915	985	1,291	1,439	1,546
Arkansas	632	665	731	912	1,087
California	1,067	1,060	1,129	1,318	1,373
Colorado	798	902	1,138	1,278	1,423
Connecticut	966	1,082	1,365	1,359	1,596
Delaware	1,106	1,298	1,575	1,747	1,723
District of Columbia	[2]1,372	1,250	1,626	1,827	1,957
Florida	923	954	[2]1,030	1,030	1,392
Georgia	688	729	895	974	1,087
Hawaii	964	1,144	1,240	1,391	1,600
Idaho	706	761	868	942	1,232
Illinois	959	1,122	1,394	1,425	1,637
Indiana	847	1,025	1,100	1,152	1,298
Iowa	1,037	1,104	1,238	1,273	1,400
Kansas	920	860	1,025	1,114	1,607
Kentucky	693	709	788	829	960
Louisiana	746	904	1,002	1,096	1,158
Maine	816	885	952	1,033	1,130
Maryland	1,137	1,240	1,473	1,591	1,771
Massachusetts	874	980	1,234	1,279	1,504
Michigan	1,019	1,126	1,461	1,459	1,770
Minnesota	1,105	1,241	1,387	1,450	1,635
Mississippi	534	553	751	858	921
Missouri	842	843	984	1,082	1,203
Montana	982	1,000	—	1,248	1,392
Nebraska	649	837	1,074	1,188	1,378
Nevada	877	911	1,199	1,276	1,308
New Hampshire	856	918	1,073	1,036	1,173
New Jersey	1,108	1,207	1,476	1,565	[2]1,713
New Mexico	835	912	1,105	[4]1,220	1,282
New York	1,420	1,561	1,808	2,037	2,241
North Carolina	675	714	880	978	1,151
North Dakota	764	761	956	1,101	1,199
Ohio	804	891	1,038	1,120	1,270
Oklahoma	617	746	778	921	1,131
Oregon	1,022	1,079	1,262	1,341	1,642
Pennsylvania	1,056	1,191	1,427	1,474	1,587
Rhode Island	1,010	1,147	1,232	1,415	1,665
South Carolina	645	753	847	983	1,125
South Dakota	775	826	900	1,011	1,062
Tennessee	636	670	811	841	997
Texas	709	775	943	977	1,073
Utah	716	739	843	996	1,265
Vermont	1,034	1,162	1,360	1,308	1,267
Virginia	822	923	1,082	1,142	1,231
Washington	880	1,018	1,119	1,136	1,339
West Virginia	706	704	826	945	1,020
Wisconsin	988	1,078	1,241	1,335	1,452
Wyoming	931	1,012	1,193	1,301	1,404
Outlying areas:					
American Samoa	634	[5]634	719	—	891
Canal Zone	1,065	1,139	([5])	—	1,603
Guam	676	854	1,047	—	1,114
Puerto Rico	[6]312	416	483	—	[3]483
Virgin Islands	—	—	1,433	—	2,149

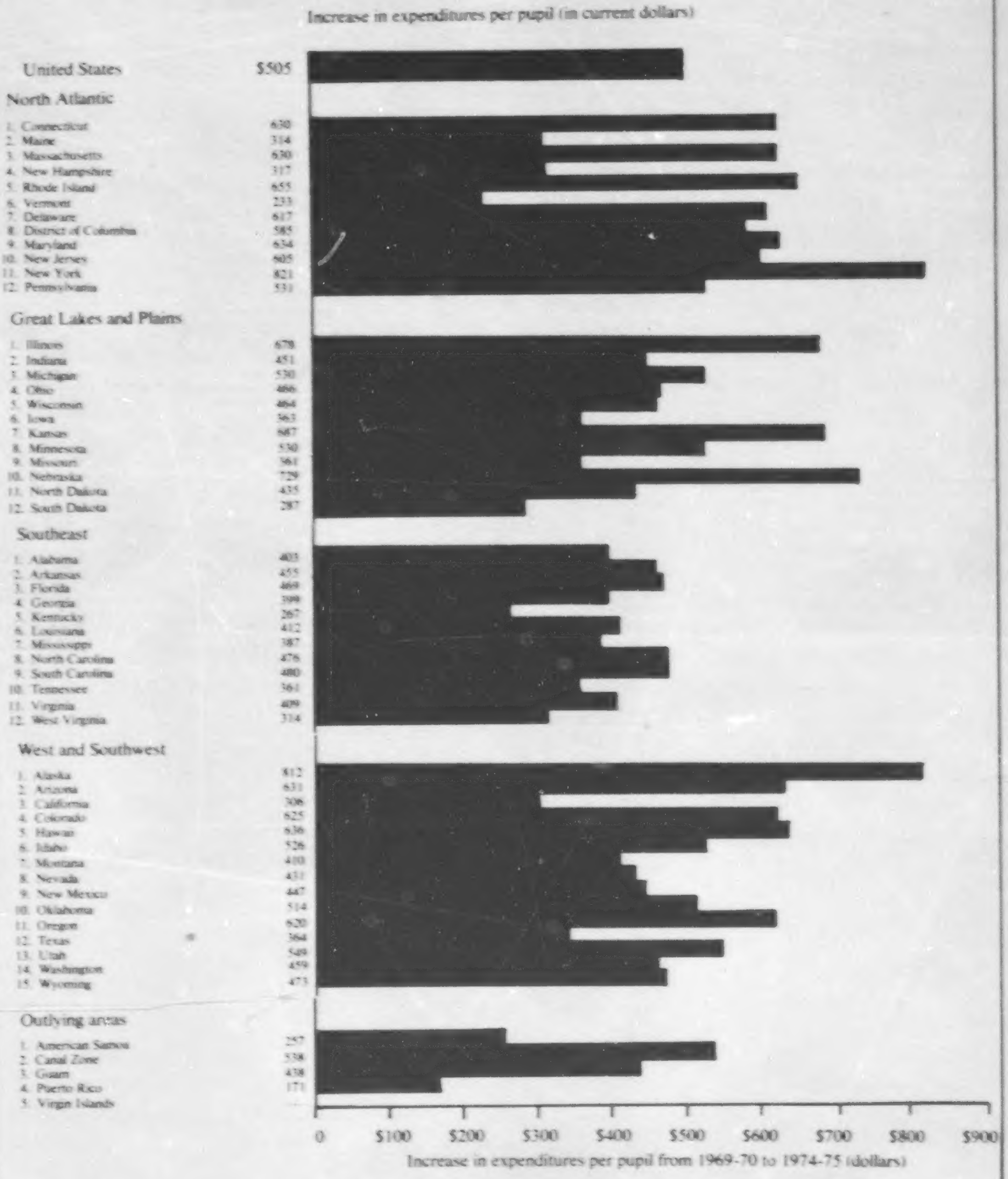
[1] Includes current expenditures, capital outlay, and interest on school debt.
[2] Estimated by National Center for Education Statistics.
[3] Data for 1972-73.
[4] Excludes per-pupil expenditures for kindergarten pupils.
[5] Data for 1969-70.
[6] Data for 1968-69.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Day Schools*, Fall 1969, Fall 1970, Fall 1972, Fall 1973, and Fall 1974.

Increases in expenditures per pupil by State have been least in the Southeast.

Chart 7.8

Changes in Expenditure Estimates

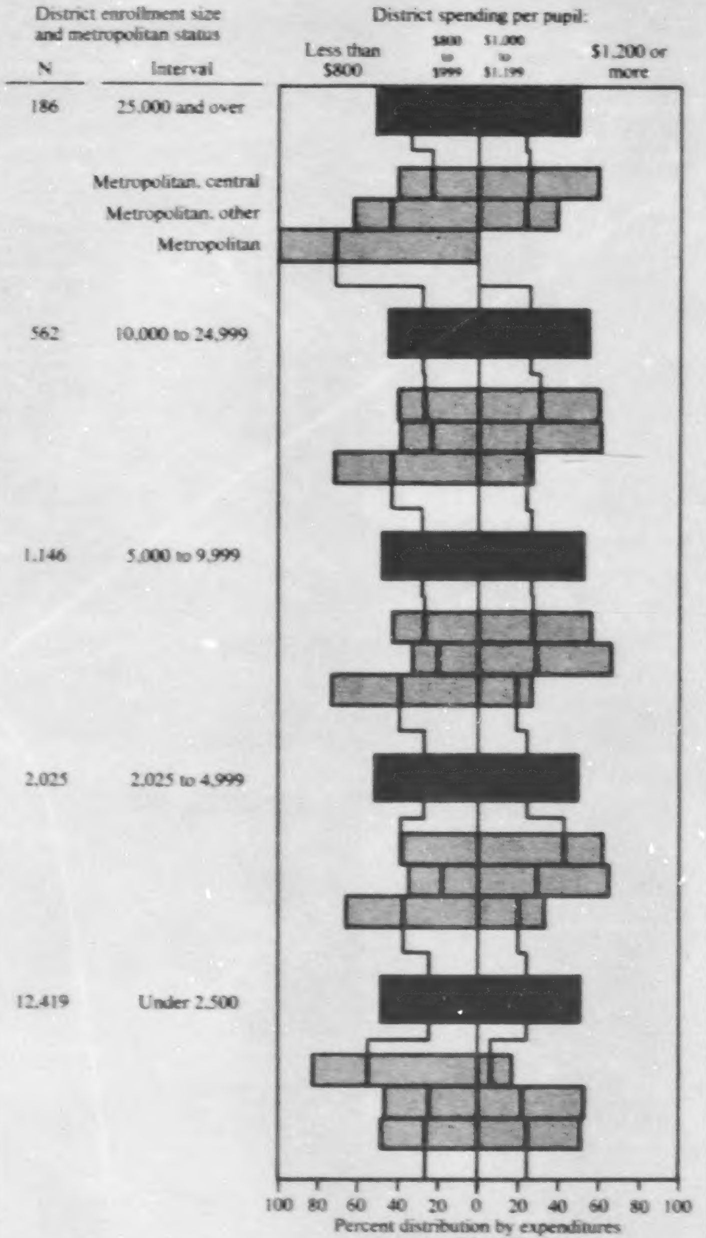


Per pupil expenditures of school systems are usually highest in metropolitan areas.

See Table 7.9

Chart 7.9

Current Expenditures per Pupil by School Systems



Many States show substantial variations in expenditures per pupil by school district.

Chart 7.10

Distribution of School Systems, by Current Expenditures

State	Total operating systems	Percent distribution of expenditures per pupil							Median expenditure per pupil
		Total	less than $700	$700 to $899	$900 to $1,099	$1,100 to $1,299	$1,300 to $1,499	$1,500 or more	
U.S. total	**16,338**	**100.00**	**12.05**	**22.60**	**27.43**	**18.79**	**9.89**	**9.22**	**$1,008**
Alabama	126	100.00	62.16	35.86	0	1.98	0	0	669
Alaska	32	100.00	0	0	0	0	0	100.00	2,263
Arizona	276	100.00	9.51	37.49	27.24	2.70	19.82	3.24	912
Arkansas	383	100.00	43.14	33.80	18.76	4.30	0	0	739
California	1,045	100.00	8.11	18.79	24.32	19.79	18.95	10.03	1,094
Colorado	181	100.00	0	15.59	20.05	25.62	11.14	27.60	1,236
Connecticut	165	100.00	1.31	5.02	33.79	33.03	11.88	14.97	1,143
Delaware	24	100.00	0	3.85	46.15	34.61	3.85	11.55	1,112
District of Columbia	1	100.00	0	0	0	0	100.00	0	1,482
Florida	67	100.00	0	16.85	54.71	19.35	9.09	0	991
Georgia	188	100.00	39.59	37.34	19.62	2.07	0	1.38	761
Hawaii	1	100.00	0	0	0	0	100.00	0	1,302
Idaho	115	100.00	8.19	53.99	21.77	4.06	0	11.99	831
Illinois	1,057	100.00	2.73	14.83	25.51	30.78	18.46	7.71	1,128
Indiana	304	100.00	5.77	58.24	30.81	4.83	0.34	0	837
Iowa	451	100.00	0	2.18	44.67	48.86	4.29	0	1,106
Kansas	309	100.00	0.29	9.63	30.59	27.37	15.55	16.58	1,165
Kentucky	188	100.00	24.25	51.13	23.25	1.36	0	0	755
Louisiana	66	100.00	0	35.21	60.38	4.40	0	0	938
Maine	230	100.00	9.61	42.25	26.88	6.70	12.56	1.98	891
Maryland	24	100.00	0	0	54.55	40.91	0	4.55	1,077
Massachusetts	356	100.00	0.28	0.96	26.84	33.70	26.76	11.47	1,234
Michigan	593	100.00	8.15	22.04	40.78	17.11	10.06	1.88	1,005
Minnesota	438	100.00	0	1.01	33.08	48.14	16.81	0.96	1,150
Mississippi	150	100.00	53.62	45.03	1.35	0	0	0	694
Missouri	576	100.00	12.28	18.62	45.70	20.64	1.95	0.82	990
Montana	650	100.00	34.61	19.19	8.47	30.35	0.94	6.44	869
Nebraska	1,281	100.00	30.56	13.06	26.23	10.17	2.58	17.40	958
Nevada	17	100.00	0	0	32.53	39.03	28.44	0	1,153
New Hampshire	156	100.00	11.07	57.35	23.92	6.86	0.79	0	818
New Jersey	579	100.00	6.41	4.98	14.48	24.35	28.37	21.42	1,290
New Mexico	88	100.00	0.50	35.48	25.62	36.71	1.18	0.50	974
New York	734	100.00	2.02	0.90	0.14	10.26	33.10	53.57	1,515
North Carolina	150	100.00	1.36	39.81	53.45	5.39	0	0	924
North Dakota	336	100.00	3.81	33.56	32.09	14.29	8.13	8.10	976
Ohio	621	100.00	15.36	59.70	18.33	4.05	1.91	0.64	818
Oklahoma	637	100.00	32.56	32.01	21.29	1.64	0.65	11.86	765
Oregon	338	100.00	0	3.22	51.13	20.34	19.20	6.11	1,054
Pennsylvania	504	100.00	0.94	4.18	54.09	32.00	5.61	3.18	1,075
Rhode Island	40	100.00	0	0	16.37	64.93	14.03	4.68	1,237
South Carolina	93	100.00	43.14	53.06	3.79	0	0	0	721
South Dakota	220	100.00	3.61	33.66	37.05	16.16	5.21	4.31	960
Tennessee	146	100.00	60.51	29.41	9.24	.84	0	0	663
Texas	1,120	100.00	17.66	46.08	15.45	9.24	8.80	2.78	854
Utah	40	100.00	0	31.53	39.03	2.43	27.01	0	1,000
Vermont	245	100.00	12.58	31.32	32.35	13.28	4.80	5.68	922
Virginia	134	100.00	.80	43.68	48.27	4.02	0.80	2.41	907
Washington	314	100.00	0	7.19	50.61	37.45	0.96	3.79	1,085
West Virginia	55	100.00	0	52.33	47.67	0	0	0	895
Wisconsin	434	100.00	0.51	7.73	35.81	43.92	8.29	3.72	1,130
Wyoming	60	100.00	0	1.48	13.33	35.22	11.85	38.13	1,291

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Education Directory, 1973-74: Public School Systems,* and preliminary data.

Chapter 8

Comparative Profiles of Education in the United States and Other Countries

This chapter compares education in the United States with that in nine other countries close to the United States in income levels and sociocultural background. These countries are Canada, France, Germany (F.R.), Italy, Japan, the Netherlands, Norway, Sweden, and the United Kingdom. This comparison provides an opportunity to view the educational system of the United States in the broader context of other nations' efforts.

Educational Attainment

A summary picture of educational attainment levels of adults aged 25-64 who have left the regular education system is provided in chart 8.1. In total years of education received, the United States occupies the leading position. The average American adult has received 11.1 years of formal schooling. The next highest attainment (10.2 years) is in the United Kingdom.

Rates of growth in the stock of education per capita of the adult population for the decade 1960 to 1970 and projected from 1970 to 1980 show that, of the countries discussed here, all but Germany and Japan expect the annual growth rate in educational attainment will be greater than it has been. This anticipated increase reflects the impact of current enrollments in education (chart 8.2). In the 1960's, most countries were catching up with the United States in secondary and higher educational attainment. Because of enrollment trends in the past few years, the general level of attainment will expand faster in the 1970's than in the 1960's, with most other countries still gaining on the United States in secondary education attainment; however, the stock of people in the United States with higher education will keep pace with the fastest rates of advance elsewhere.

Comparisons of education levels of adult males and females aged 15 and over show males with slightly more years of schooling than females in each country except Canada and the Netherlands, where the average is equal for both sexes (chart 8.3).

Cognitive Achievement

The goals of education are complex and one of the most difficult things to judge about an educational system is what it produces. Apart from cognitive training, educating has important functions in promoting personal fulfillment; in fostering social continuity, social cohesion, and social mobility; and in providing training for future members of the labor force.

There is, then, no shorthand way of testing the output of education systems. Virtually all the available indicators describe participation or resource use, and very few give any clue to educational outcomes. There is one major exception: the National Assessment of Educational Progress (NAEP) in the United States, which measures performance of students at various levels in 10 different subject matter areas (results from several of these assessments appear in chapters 2, 3, and 5). Most other countries do not have such a broad assessment, relying on tests of a more limited scope (e.g., tests of reading ability).

Nevertheless, some international comparisons of student performance at the secondary level are possible as a result of the work of the International Association for the Evaluation of Educational Achievement (I.E.A.) in Stockholm. This non-governmental, non-profit-making scientific association (under Belgian law and financed by governments and private foundations) cooperatively developed and carried out large-scale tests in seven subjects on a comparable basis in a number of countries. First was a study of mathematics achievement and more recently a study of achievement in science, literature, reading comprehension, civics, English as a foreign language, and French as a foreign language.

Chart 8.4 presents results of these tests in four subjects. International comparison is difficult because the tests were not administered in all four subjects in all the countries. But it is possible to compare results for 14-year-olds in the United States with those in Sweden and the United Kingdom. The average United States ranking was higher than that in the other two countries.

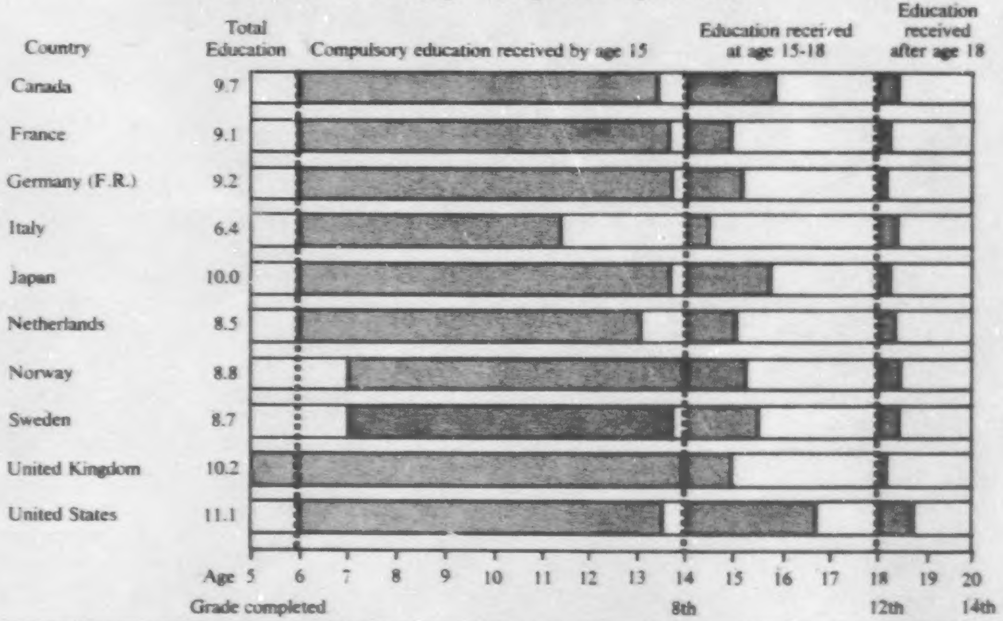
For students in the final year of secondary education, results were different: United States' scores were lower than those in other countries for all fields except literature. A major reason for this is that the United States' education system retains most of its pupils until their high school education is finished, whereas in Europe a much smaller fraction of students stay on to finish high school. For instance, in the year in which the science test was taken, the proportion of the whole age group in school was 75 per cent in the United States, 45 per cent in Sweden, 29 per cent in France, 20 per cent in the Netherlands, and only 9 per cent in Germany.

The years of schooling completed by the average United States citizen are more than elsewhere, the advantage being greatest at the secondary and higher education levels.

See Table 8.1

Chart 8.1

Years of Schooling Completed by Adults

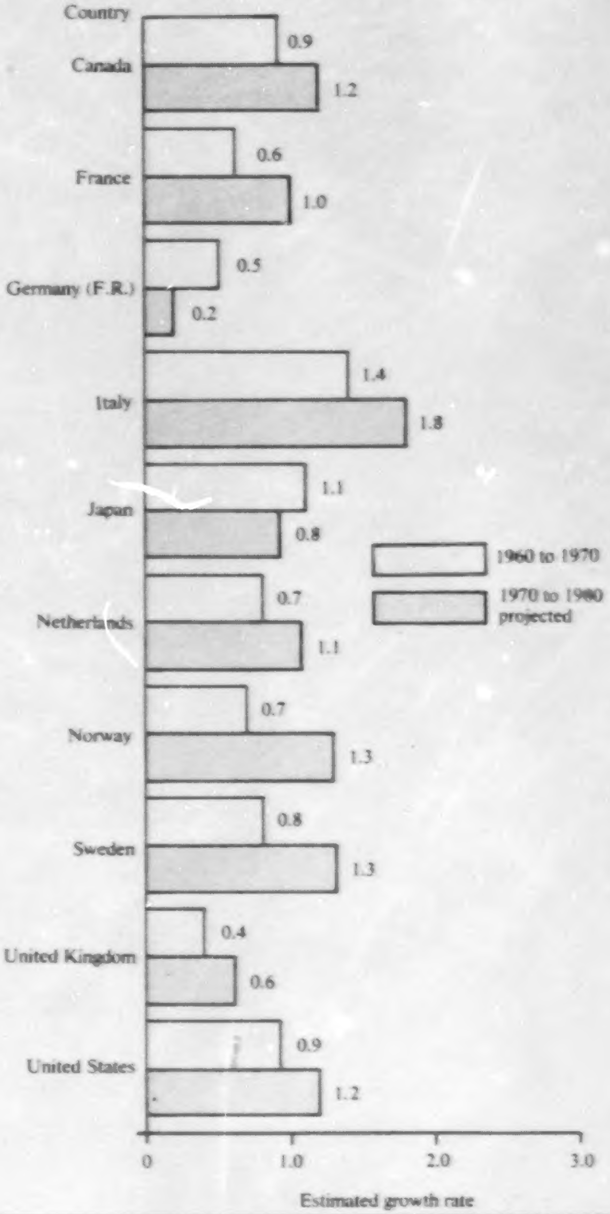


Educational levels of the adult population improved steadily in the 1960's and will increase faster in most countries in the 1970's.

See Table 8.2

Chart 8.2

Growth Rate in Years of Education Completed by Adults

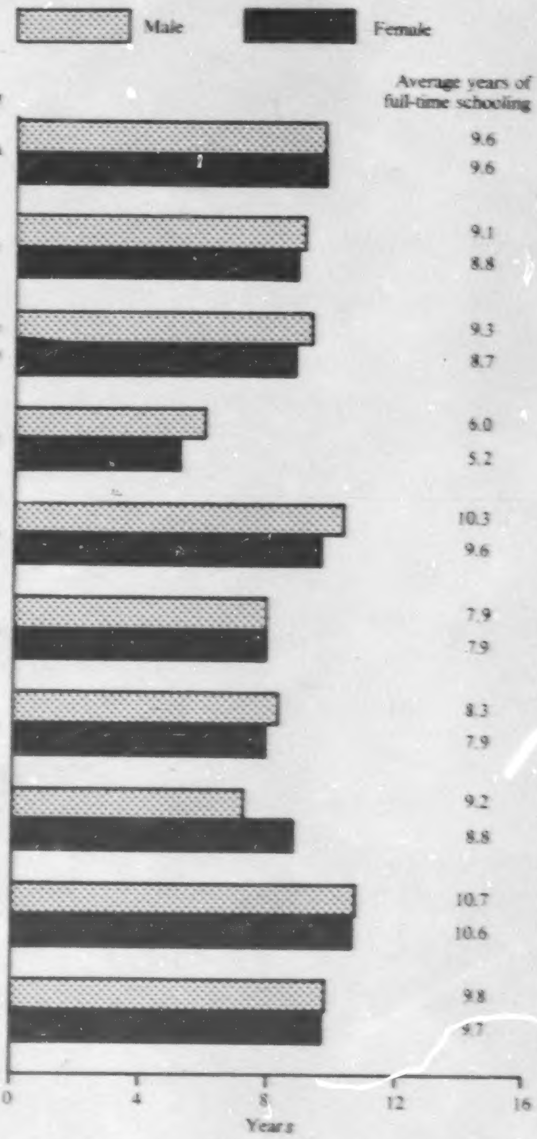


Male educational advantage prevails in all countries except Canada and the Netherlands.

See Table 8.3

Chart 8.3

Years of Full-Time Education per Capita

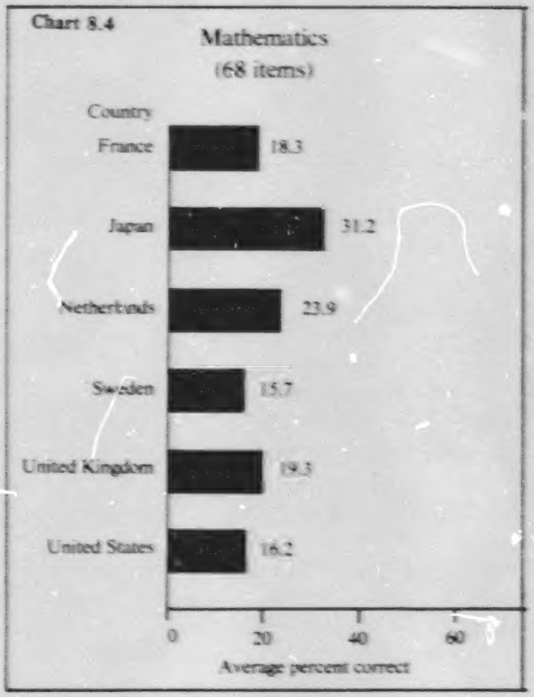


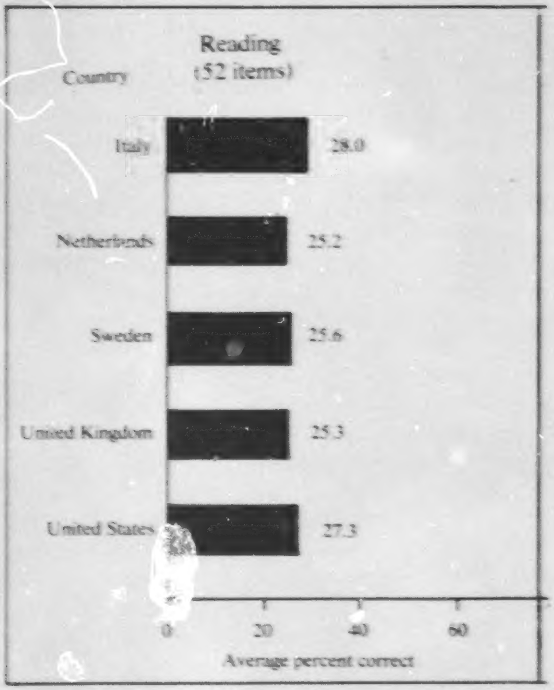
Average Scores on International Achievement Tests

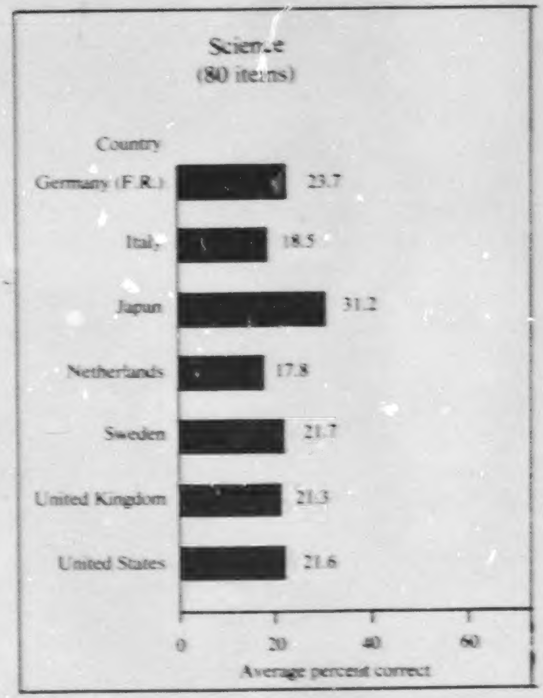
Test performance of United States students is weak in the final secondary year, compared with other countries.

See Table 8.4

Chart 8.4







Participation in Education

The length of time that young people spend in the regular education system (i.e. excluding various forms of adult education on which data are poor), as measured by current levels of enrollment, varies for the countries examined here (chart 8.5). As already observed, regular education lasts longest in the United States. At present, the typical American will spend 15.2 years in the formal educational process. The lowest duration for the countries discussed here is in Norway, with 11.7 years.

There are four countries where, because of more generous provision for preprimary education, the average person starts education earlier than in the United States. In fact, French schooling is practically universal for 4- and 5-year-olds. The Scandinavian countries are at the other extreme, where provision for preprimary schooling is smallest. Enrollments at this level of education are expanding rapidly in all the countries listed.

Between 1960 and 1970, higher education enrollment rose more rapidly than did secondary education enrollment (chart 8.6) and growth has been more rapid in the other countries than in the United States, which started at a higher level.

The mix of public-private facilities has evolved out of historical compromise, often after fierce controversy, particularly over religious education. The situation differs a good deal from country to country (chart 8.7). The United States occupies a middle position in regard to private education; 14 per cent of United States enrollment is in private schools, which is less than the 17 per cent in France, 19 per cent in Italy, 23 per cent in Japan, and 72 per cent in the Netherlands, but a good deal more than in Canada, Germany, Norway, and the United Kingdom. The most notable contrasts among countries occur at the higher education level, where private facilities serve a quarter of United States students, three quarters of Japanese, and very few in the other countries.

Private schools also vary a good deal from country to country in sources of finance. In France, private institutions are usually religious and most of their costs are covered by the government if they observe certain rules on teacher selection, whereas in Japan and the United Kingdom private institutions receive little state help. Here again the United States occupies a middle position.

Pupil-teacher ratios can be examined only at the level of primary education if one wishes to make valid international comparisons. Classes in the United States are somewhat bigger than those in most of the other countries (chart 8.8), while the proportion of teachers in the labor force (3.4 per cent) in the United States is higher than in any country except Canada (3.7) and equalled only by the Netherlands.

In the United States, enrollment in secondary education now covers five-sixths of the population (chart 8.10). In other countries, the proportion is usually a good deal lower, but has been increasing and will probably approximate that of the United States in a few years. The pattern of secondary provision, however, may well be quite different and may involve a wider range of options for combining education with work than are presently available in the United States. The discussions of postsecondary education participation in chapter 4 and of the relationships between education and work in chapter 5 suggested areas of change in patterns of participation that may have increasing effect in the future.

At the higher education level, it is possible to measure access in a number of ways. Simply to look at the proportion enrolled in a given age range can be misleading, because the figures will be swollen in countries where higher education is typically very lengthy (e.g., in the Netherlands, where it usually lasts for 7 years as compared with a 3-year norm in the United Kingdom).

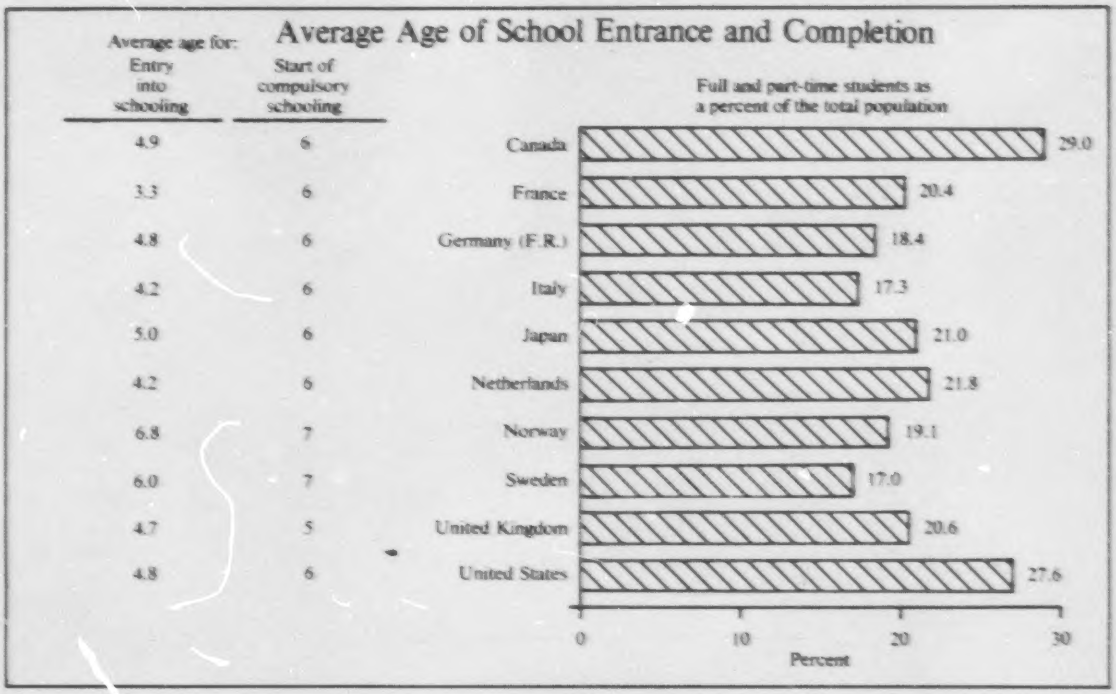
It is, therefore, preferable to view new entrants to higher education in relation to the age groups from which most entrants are normally taken. This shows the average chances of receiving some higher education, and is probably the most useful ratio (chart 8.11). It can be seen that almost half the relevant age group in the United States participate in higher education—a substantially higher proportion than anywhere else except in Sweden.

Education enrollment is generally higher for males than for females. In compulsory education, enrollment covers virtually all of the relevant age groups, but, at the secondary level, males have greater proportionate access than females and at higher levels the advantage of males seems to be appreciable (charts 8.10 and 8.11).

United States education lasts longer and ends later than elsewhere.

See Table 8.5

Chart 8.5

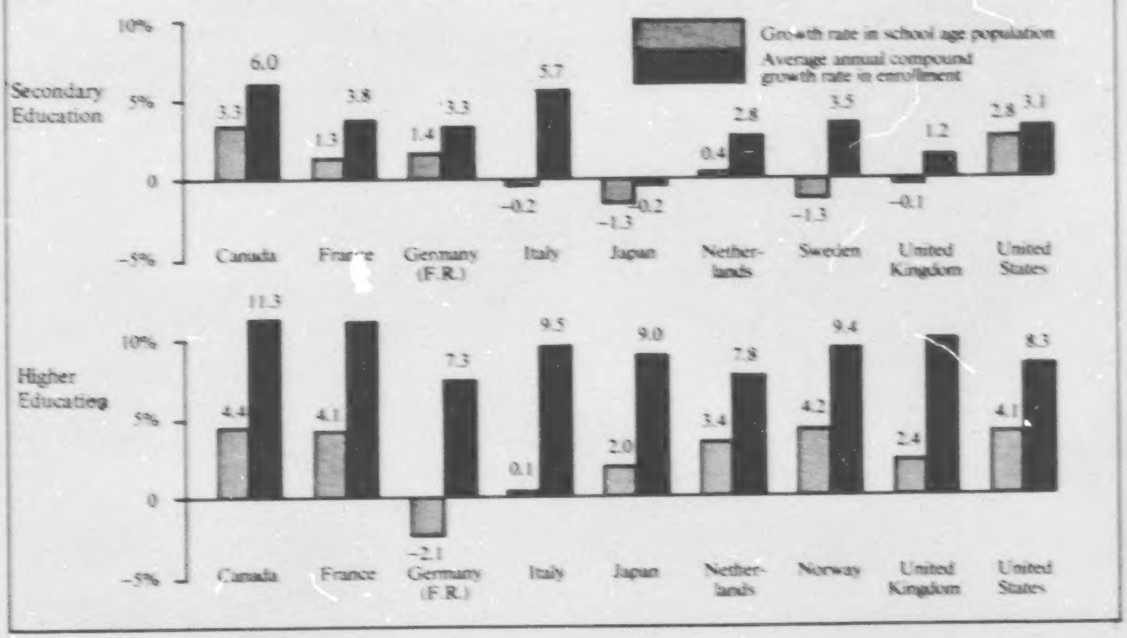


Secondary and higher educational enrollment is growing faster elsewhere than in the United States.

See Table 8.6

Chart 8.6

Growth of Full-Time Enrollment in Education

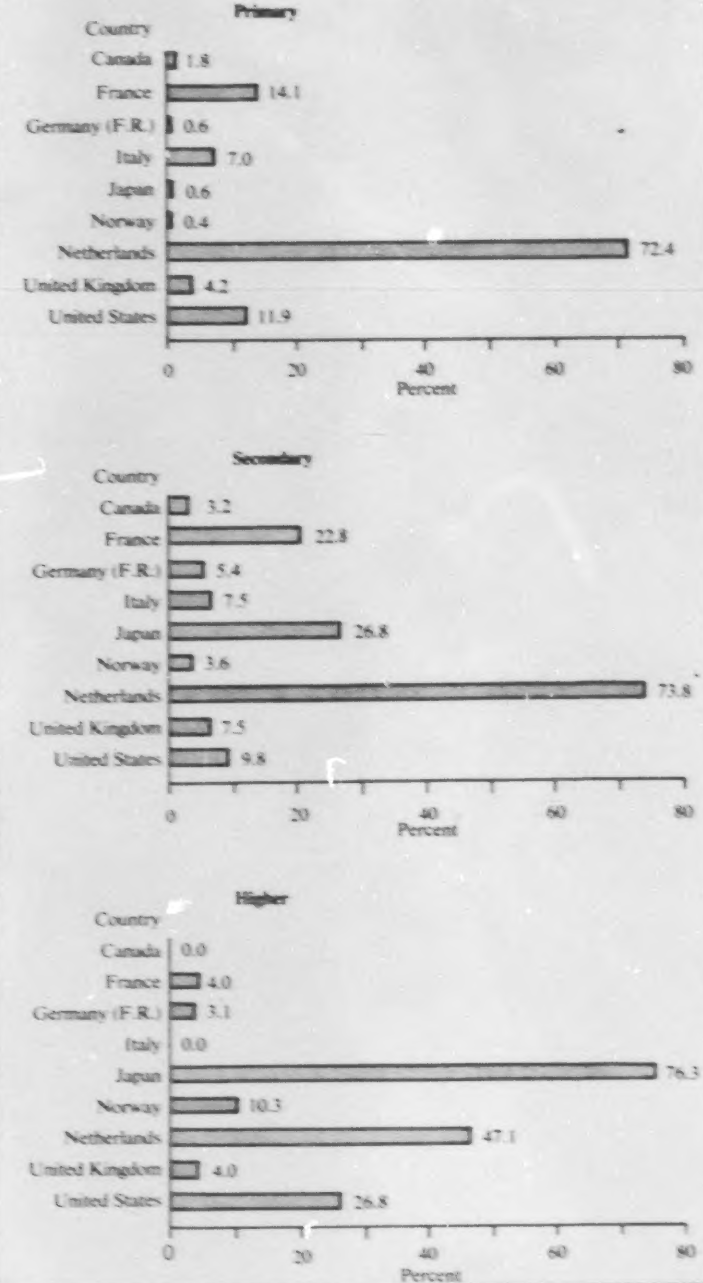


Private education plays a bigger role in some countries than it does in the United States.

See Table 8.7

Chart 8.7

Enrollment in Private Educational Institutions

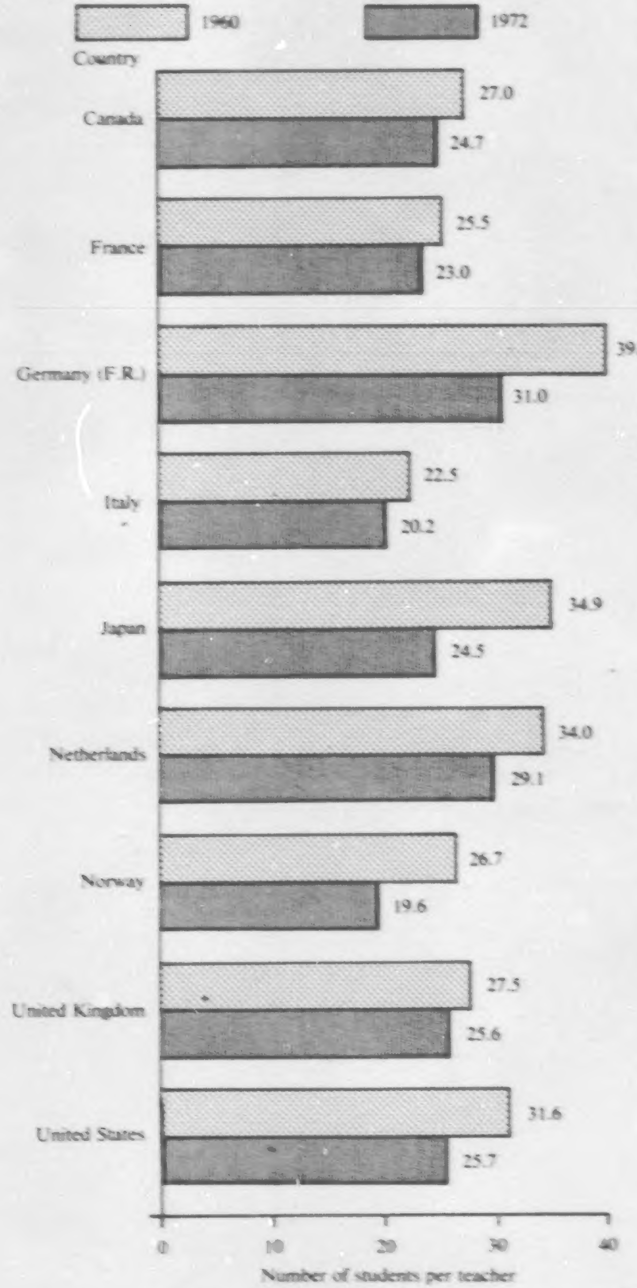


Class size is bigger in the United States than in some other countries.

See Table 8.8

Chart 8.8

Pupil-Teacher Ratios in Primary Education

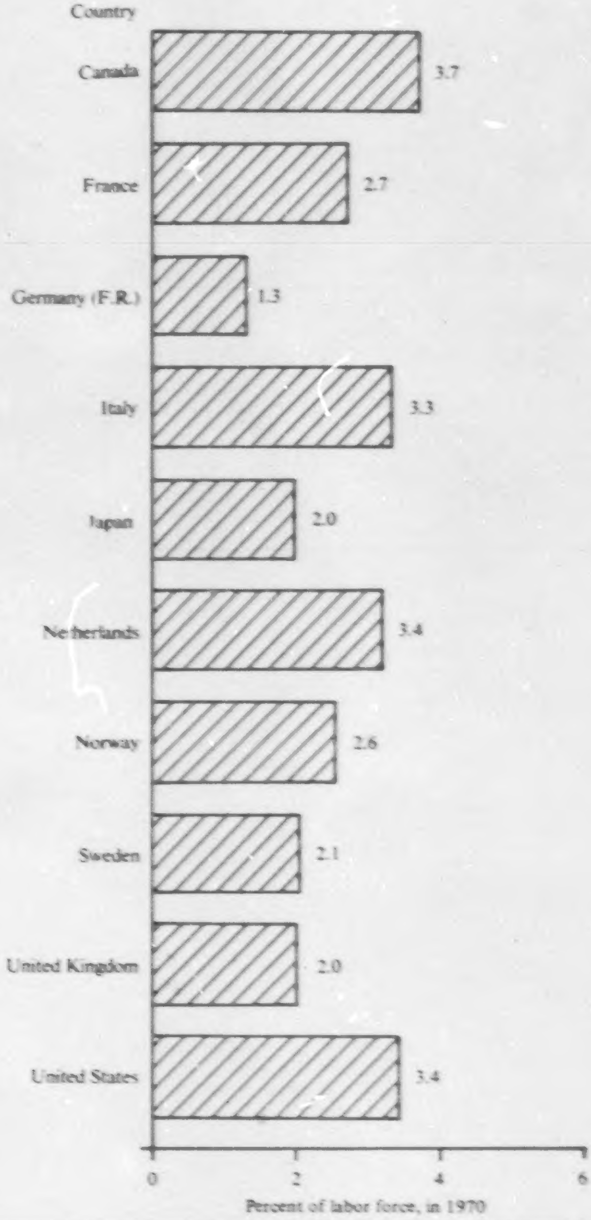


Teaching is a more important source of employment in the United States than in most other countries.

See Table 8.9

Chart 8.9

Teachers in the Labor Force

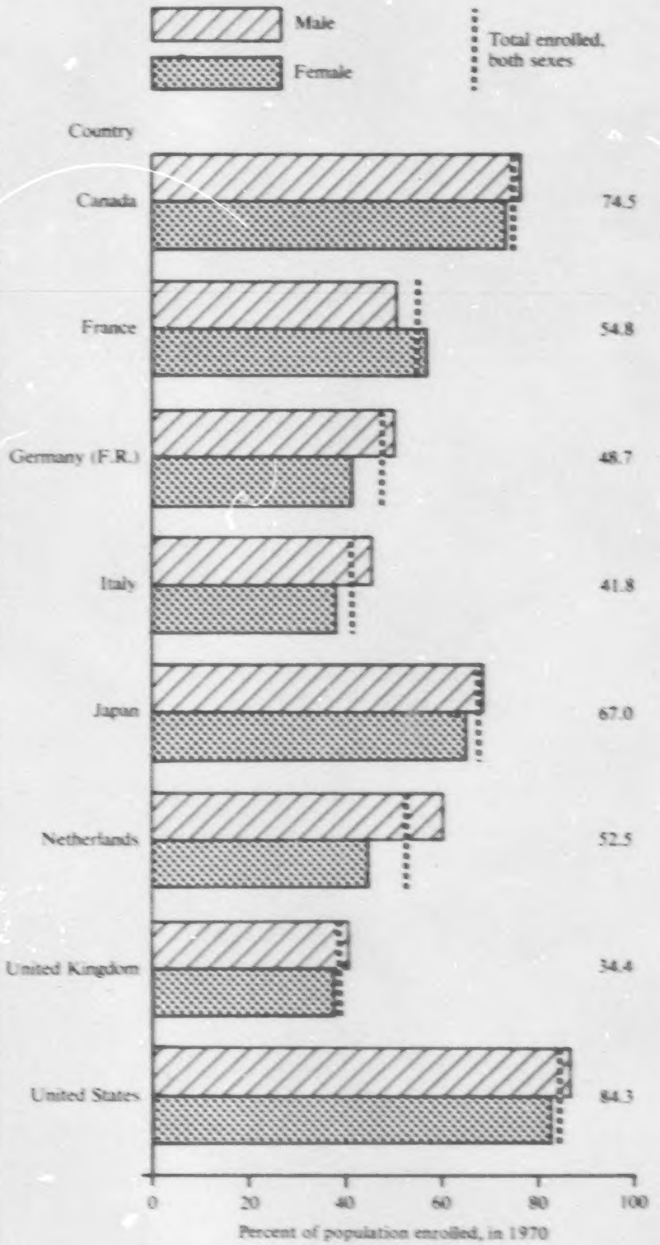


United States teenage enrollment is high than elsewhere for both sexes.

See Table 8.10

Chart 8.10

Population Aged 15-18 Enrolled in Education

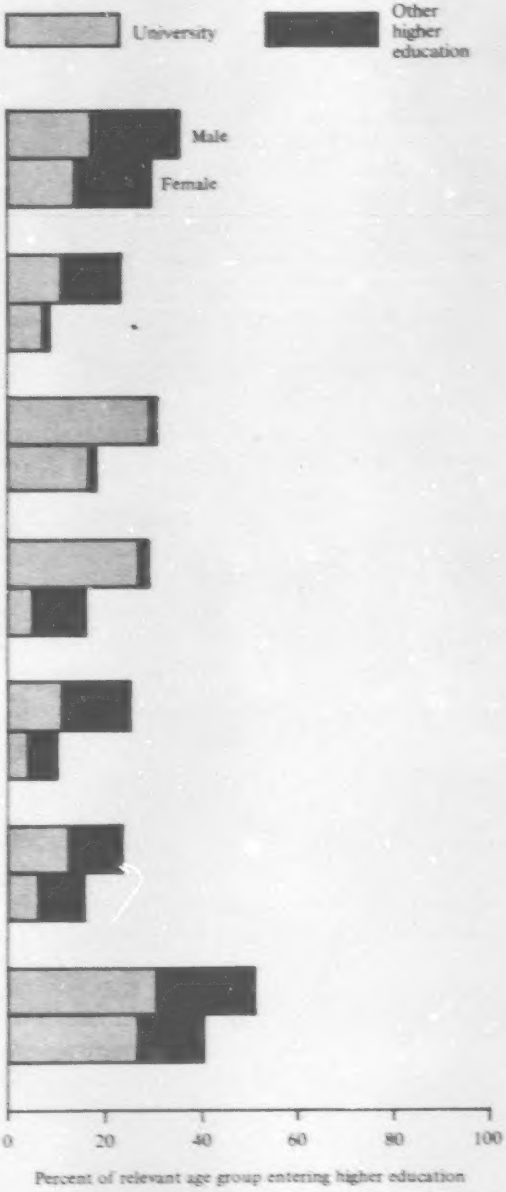


Entry to higher education is greater in the United States than elsewhere, for both males and females.

See Table 8.11

Chart 8.11

Entry Into Higher Education



Financing Education

Education is a major item of government expenditure in the United States and in all the other nations covered in this survey. In the United States, public *current* spending on education (i.e., excluding capital costs of school construction) is equal to nearly 6 per cent of Gross National Product (chart 8.12). Although this public commitment to education is high, the comparable figure is higher in Canada.

The cost of public education depends mainly on three considerations: the number of young people of school age, the proportion of these who are able and willing to go to school, and the quality and quantity of the educational facilities they are offered. (Table 8.12 offers a summary view of the impact of these factors.) The United States has a relatively large population of young people, larger than in any other of the nine countries except Canada. Two-fifths of the United States population are aged 3 to 24 years, whereas the like proportion is less than one-third in Germany and Sweden. The United States also has a high enrollment ratio, higher than that of any of the other countries except Canada. Of 3- to 24-year-olds in the United States, 62 per cent are in school, compared with 45 per cent in Japan.

Finally, the costs of education will depend on the average cost of facilities provided for each pupil. This can best be measured in some unit that corrects for differences in national price levels. The current cost per pupil year as a ratio to gross national product per capita is shown in table 8.12. On this measure, United States standards of provision per pupil are lower than those in four of the other countries and higher than in the other four shown in table 8.12.

In examining costs separately for primary, secondary, and higher education, United States standards are very economical in higher education, where costs per pupil are lower than in all the other countries except France and Sweden (charts 8.13 and 8.14).

In all countries, teachers are the largest factor in educational costs,* but considerable differences exist in national norms for pupil-teacher ratios. The pupil-teacher ratios for primary education presented earlier showed seven countries with smaller classes than in the United States in 1972. At secondary and higher levels of education, class size is generally smaller than at the lower levels, but valid international comparisons are more difficult because the numbers of part-time pupils and teachers are sometimes appreciable and vary among countries. It is noteworthy that the range of variation in the ratio is so wide, from 31 in Germany to 16 in Sweden. There is lively controversy among education experts as to the likely impact of class size on pupil performance. The trend in class size, however, is clearly downward in all countries except Sweden.

It should be noted that the above comparisons do not cover the whole cost of public education. Some elements of cost are not conventionally included in education budgets or in the national accounts (e.g., the rental value of educational buildings, and the value of student time, particularly the time of students old enough to work). It is difficult to establish an appropriate figure of foregone earnings by such students, but, whatever the procedure, there is no doubt that the cost would be highest in the United States, which has the highest proportion of pupils of working age. Other excluded items are the cost of adult education and training financed outside Ministry of Education budgets and some elements of private expenditure on educational services.

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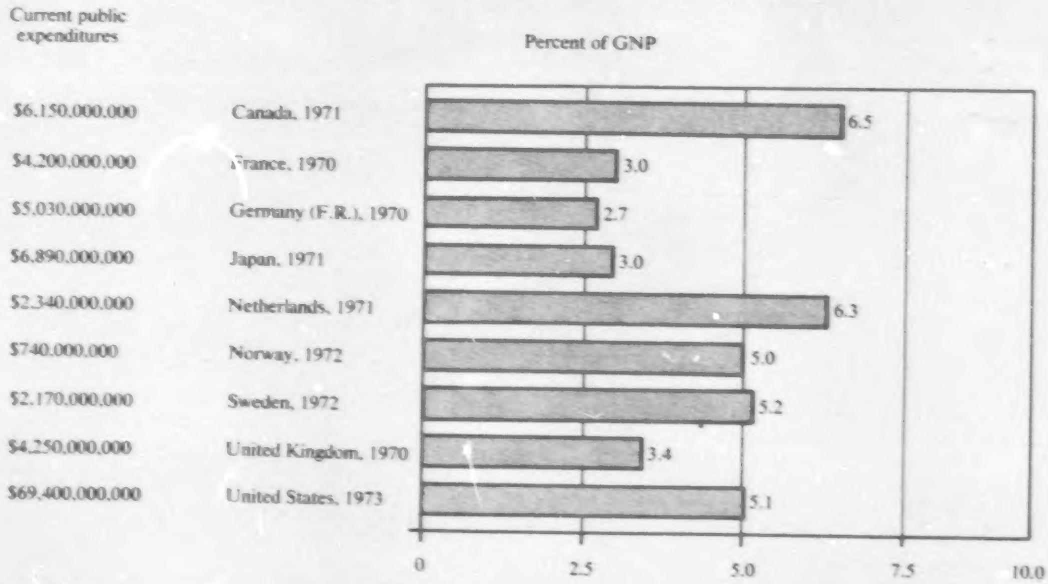
*Educational costs are also affected by the relation between teacher salaries and salaries elsewhere in the economy. Unfortunately, the data on salaries were too weak to use for international comparison.

The total burden of education costs is lower in the United States than in Canada and the Netherlands.

See Table 8.12

Chart 8.12

Pubiic Current Expenditures for Education

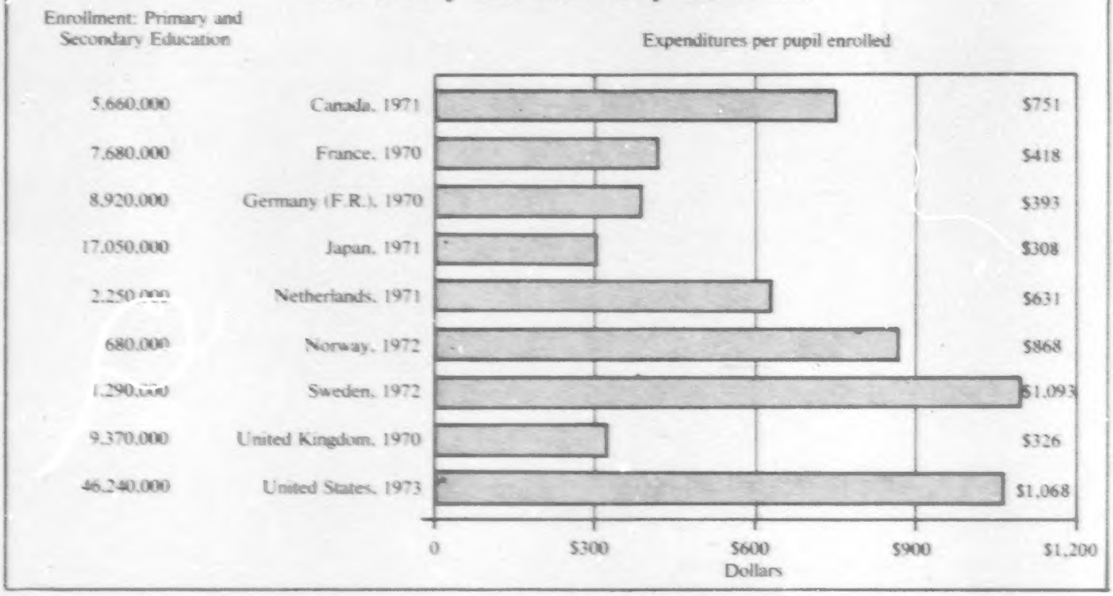


Per pupil expenditures for elementary and secondary education in the United States are exceeded only by those in Sweden.

See Table 8.13

Chart 8.13

Public Current Expenditures for Elementary and Secondary Education

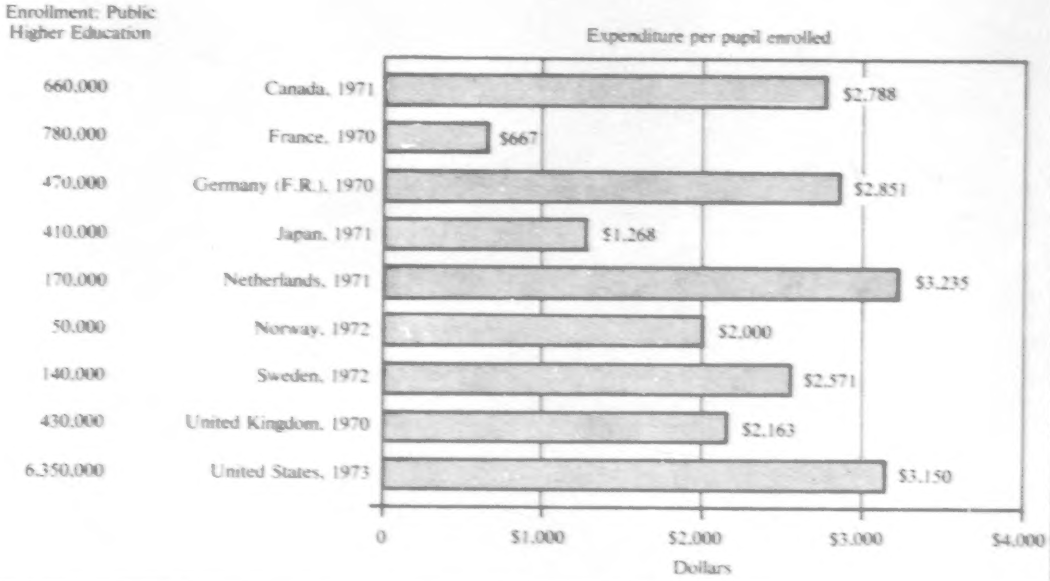


Public expenditures per pupil enrolled in higher education are higher for the United States than for all countries except the Netherlands.

See Table 8.14

Chart 8.14

Public Current Expenditure for Higher Education



III

Tables

Table 1.1.– Estimated population of the United States: 1790 to 1975

(In thousands)

Year[1]	Total population[2]	Year	Total population	Year	Total population	Year	Total population
1790 ..	3,929	1840 ..	17,120	1890 ..	63,056	1940 ..	132,054
1795 ..	4,607	1845 ..	20,182	1895 ..	69,580	1945 ..	139,767
1800 ..	5,297	1850 ..	23,261	1900 ..	76,094	1950 ..	151,135
1805 ..	6,258	1855 ..	27,386	1905 ..	83,820	1955 ..	164,588
1810 ..	7,224	1860 ..	31,513	1910 ..	92,407	1960 ..	179,386
1815 ..	8,419	1865 ..	35,701	1915 ..	100,549	1965 ..	193,223
1820 ..	9,618	1870 ..	39,905	1920 ..	106,466	1970 ..	203,849
1825 ..	11,252	1875 ..	45,073	1925 ..	115,832	1975 ..	213,641
1830 ..	12,901	1880 ..	50,262	1930 ..	123,188		
1835 ..	15,003	1885 ..	56,658	1935 ..	127,362		

[1] Estimates as of July 1.
[2] Includes Armed Forces overseas.

SOURCES: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957; Projections of the Population of the United States: 1975 to 2050,* Series P-25, No. 601.

Table 1.3.– Participation in public elementary and secondary schools: selected years, 1870 to 1972

Participation Indexes	School year ending											
	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1972
Average length of school term (days)	132.2	130.3	134.7	144.3	157.5	161.9	172.7	175.0	177.9	178.0	178.9	179.3
Percent of population 5-17 years enrolled	57.0	65.5	68.6	71.9	74.2	78.3	81.7	84.4	83.2	82.2	86.9	88.1
Percent of enrolled pupils attending daily	59.3	62.3	64.1	68.6	72.1	74.8	82.8	86.7	88.7	90.0	90.4	90.2
Average attendance as percent of enrollment ...	33.8	40.8	44.0	49.3	53.5	58.6	67.7	73.2	73.8	74.0	78.6	79.5

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems, 1971-72.*

Table 1.4.–Teachers in elementary and secondary schools and instructional staff members in institutions of higher education: Selected years, 1870 to 1974

[In thousands]

School year ending	Elementary and secondary school instructional staff[1]			Higher education instructional staff		
	Total	Males	Females	Total	Males	Females
1870	201	78	123	6	5	1
1880	287	123	164	12	7	4
1890	364	126	238	16	13	3
1900	423	127	296	24	19	5
1910	523	110	413	36	29	7
1920	657	93	565	49	36	13
1930	843	140	703	82	60	22
1940	875	195	681	147	106	41
1950	914	195	719	247	186	61
1960	1,387	402	985	381	297	84
1970	2,131	691	1,440	825	643	182
1974	2,155	723	1,433			

[1] Includes teachers, librarians, and other nonsupervisory instructional staff.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems; Faculty and Other Professional Staff in Insitutions of Higher Education.*

Table 1.5.–Years of school completed by persons 25 years old or over: 1910 through 1974

Age and year	Percentage distribution by years of school completed					Median school years completed
	Total	Less than 5 years	5 to 11 years	12 to 15 years	16 or more years	
25 years old or over:						
1910	100.0	23.8	62.7	10.8	2.7	8.1
1920	100.0	22.0	61.6	13.1	3.3	8.2
1930	100.0	17.5	63.4	15.2	3.9	8.4
1940	100.0	13.5	62.4	19.5	4.6	8.6
1950	100.0	10.8	55.8	27.4	6.0	9.3
1960	100.0	8.3	50.6	33.4	7.7	10.5
1970	100.0	5.3	39.5	44.2	11.0	12.2
1972	100.0	4.6	37.2	46.2	12.0	12.2
1974	100.0	4.4	34.4	47.9	13.3	12.3

SOURCES: U.S. Department of Commerce, Bureau of the Census, *1960 Census of Population*, Vol. 1, Part 1: *Current Population Reports*, Series P-20, Series P-19, No. 4; and 1960 Census Monograph, *Education of the American Population*, by John K. Folger and Charles B. Nam.

Table 1.6.–Gross national product (GNP) related to total expenditures for education: 1929 to 1974

Calendar year	Gross national product (in thousands)	School year	Expenditures for education[1] Total (in thousands)	Expenditures for education[1] As a percent of gross national product
1929	$103,095,000	1929-30	$3,233,601	3.1
1933	55,601,000	1933-34	2,294,896	4.1
1937	90,446,000	1937-38	3,014,074	3.3
1941	124,540,000	1941-42	3,203,548	2.6
1945	212,010,000	1945-46	4,167,597	2.0
1949	256,484,000	1949-50	8,795,635	3.4
1953	364,593,000	1953-54	13,949,876	3.8
1957	441,134,000	1957-58	21,119,565	4.8
1961	520,109,000	1961-62	29,366,305	5.6
1965	684,884,000	1965-66	45,397,713	6.6
1969	930,284,000	1969-70	70,077,228	7.5
1971	1,054,915,000	1971-72	[2]82,999,062	7.9
1972	1,157,966,000	1972-73	89,100,000	7.7
1973	1,294,919,000	1973-74	[3]98,300,000	7.6
1974	1,397,400,000	1974-75	[3]108,700,000	7.8

[1] Includes expenditures of public and nonpublic schools at all levels of education (elementary, secondary, and higher education).

[2] Revised since originally published.

[3] Estimated.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, *Statistics of State School Systems; Financial Statistics of Institutions of Higher Education*, and unpublished data; U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 1971, and July 1974.

Table 1.7.–Estimates and projections of the population of the United States, by age and sex: 1974 and 2000

[Thousands]

Age	1974[1]		Projections to 2000[1]					
			Series I		Series II		Series III	
	Male	Female	Male	Female	Male	Female	Male	Female
All ages	**103,454**	**108,455**	**140,072**	**146,935**	**127,521**	**134,923**	**118,617**	**126,481**
Under 5 years	8,329	7,376	12,643	12,011	9,416	8,948	7,325	6,963
5 to 9 years	8,964	8,629	12,795	12,165	9,936	9,451	7,996	7,609
10 to 14 years	10,564	10,155	13,451	12,789	10,666	10,146	8,710	8,290
15 to 19 years	10,570	10,254	12,765	12,242	10,567	10,140	8,867	8,514
20 to 24 years	9,416	9,317	10,540	10,328	9,154	8,982	8,002	7,862
25 to 29 years	8,074	8,149	8,317	8,379	8,221	8,285	8,157	8,221
30 to 34 years	6,696	6,851	8,912	9,076	8,912	9,076	8,912	9,076
35 to 39 years	5,593	5,851	10,022	10,405	10,022	10,405	10,022	10,405
40 to 44 years	5,565	5,814	10,225	10,662	10,225	10,662	10,225	10,662
45 to 49 years	5,746	6,107	9,273	9,680	9,273	9,680	9,273	9,680
50 to 54 years	5,759	6,208	8,175	8,614	8,175	8,614	8,175	8,614
55 to 59 years	4,912	5,390	6,224	6,723	6,224	6,723	6,224	6,723
60 to 64 years	4,299	4,906	4,688	5,302	4,688	5,302	4,688	5,302
65 to 69 years	3,473	4,362	4,021	5,002	4,021	5,002	4,021	5,002
70 to 74 years	2,411	3,291	3,368	4,688	3,368	4,688	3,368	4,688
75 to 79 years	1,551	2,378	2,375	3,849	2,375	3,849	2,375	3,849
80 to 84 years	954	1,652	1,383	2,697	1,383	2,697	1,383	2,697
85 years and over	577	1,166	894	2,323	894	2,323	894	2,323

[1] As of July 1.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Projections of the Population of the United States: 1975 to 2050*, Series P-20, No. 601, 1975.

Table 1.8.–Estimates and projections of the population, by age: 1950 to 2000

(In thousands)

Year	Total all ages	Under 5 years	5 to 13 years	14 to 17 years	18 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and over
					Estimates					
1950	152,271	16,410	22,423	8,444	16,075	24,036	21,637	17,453	13,396	12,397
1955	165,931	18,566	27,925	9,247	14,968	24,283	22,912	18,885	14,622	14,525
1960	180,671	20,341	32,965	11,219	16,128	22,919	24,221	20,578	15,625	16,675
1965	194,303	19,824	35,754	14,153	20,293	22,465	24,447	21,839	17,077	18,451
1970	204,879	17,156	36,636	15,910	24,683	25,293	23,142	23,310	18,664	20,085
					Projections					
Series I										
1975	213,641	16,101	33,441	16,923	27,597	30,906	22,816	23,758	19,769	22,330
1980	225,705	20,001	30,441	15,753	29,441	36,157	25,702	22,640	21,047	24,523
1985	241,274	24,042	33,330	14,388	27,834	39,846	31,332	22,378	21,465	26,659
1990	257,663	25,447	41,282	13,538	25,162	41,062	36,546	25,213	20,479	28,933
1995	272,685	24,727	45,728	17,912	24,741	38,148	40,144	30,681	20,296	30,307
2000	287,007	24,654	45,923	20,575	30,578	34,684	41,315	35,742	22,937	30,600
Series II										
1975	213,450	15,910	33,441	16,923	27,597	30,906	22,816	23,758	19,769	22,330
1980	222,769	17,259	30,246	15,753	29,441	36,157	25,702	22,640	21,047	24,523
1985	234,068	19,785	30,380	14,388	27,834	39,846	31,332	22,378	21,465	26,659
1990	245,075	20,096	34,643	12,941	25,162	41,062	36,545	25,213	20,479	28,933
1995	254,495	19,161	36,799	15,317	23,641	38,148	40,144	30,681	20,296	30,307
2000	262,494	18,364	35,963	16,752	26,328	34,494	41,315	35,742	22,937	30,600
Series III										
1975	213,323	15,783	33,441	16,923	27,597	30,906	22,816	23,758	19,769	22,330
1980	220,356	14,981	30,112	15,753	29,441	36,157	25,702	22,640	21,047	24,523
1985	228,355	16,498	27,954	14,388	27,834	39,846	31,332	22,378	21,465	26,659
1990	235,581	16,339	29,383	12,463	25,162	41,062	36,545	25,213	20,479	28,933
1995	241,198	15,388	30,320	13,210	22,703	38,148	40,144	30,681	20,296	30,307
2000	245,098	14,288	29,119	13,915	22,817	34,366	41,315	35,742	22,937	30,600

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Projections of the Population of the United States: 1975 to 2050*, Series P-20, No. 601, 1975.

Table 1.10.–Prekindergarten enrollment of 3- and 4-year-olds, by race: 1964 to 1974[1]

Year (fall)	Number enrolled (thousands)			Percent of 3-4-year-old population enrolled		
	Total	White	Non-White	Total	White	Non-White
1964	439	374	65	5.2	5.3	5.1
1965	475	413	64	5.7	5.8	4.9
1966	627	513	114	7.6	7.4	8.7
1967	665	534	131	8.2	7.9	10.1
1968	738	604	134	9.4	9.3	10.4
1969	778	610	168	10.5	9.9	13.4
1970	1,003	824	180	14.1	13.9	14.8
1971	992	831	161	14.2	14.3	13.5
1972	1,213	1,015	197	17.9	17.8	18.4
1973	1,242	1,022	219	17.7	17.4	19.6
1974	1,515	1,273	243	21.7	21.9	20.9

[1] Estimated.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Preprimary Enrollment, 1964-72;* and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Population Characteristics, Nursery School and Kindergarten Enrollment: October 1973," Series P-20, No. 268, 1974.

Table 1.12.–Degree-credit enrollment in institutions of higher education, by institutional type and control: selected years, 1960 to 1974

Type and control of institution	1960	1962	1964	1966	1968	1970	1972	1973	1974
All institutions									
Total	3,610,007	4,174,936	4,950,173	5,928,000	6,928,115	7,920,149	8,255,057	8,519,750	9,023,446
Public	2,135,690	2,573,720	3,179,527	3,940,000	4,891,743	5,800,089	6,158,929	6,388,619	6,838,324
Private	1,474,317	1,601,216	1,770,646	1,988,000	2,036,372	2,120,080	2,106,128	2,131,131	2,185,122
Universities									
Total	1,550,902	[1]3,585,407	[1]4,239,305	[1]4,984,000	2,702,412	3,000,295	3,014,674	3,110,130	3,197,117
Public	991,716	[1]2,054,463	[1]2,558,668	[1]3,100,000	2,006,131	2,277,735	2,310,047	2,405,695	2,480,804
Private	559,186	[1]1,530,944	[1]1,680,637	[1]1,883,000	696,281	722,560	704,627	704,435	716,308
All other 4-year institutions									
Total	1,605,488	([2])	([2])	([2])	2,936,204	3,289,872	3,458,529	3,487,894	3,628,035
Public	750,421				1,716,471	2,002,592	2,154,417	2,153,713	2,253,389
Private	855,067				1,219,733	1,287,280	1,304,112	1,534,181	1,374,646
2-year institutions									
Total	453,617	589,529	710,868	945,000	1,289,499	1,629,982	1,791,854	1,921,726	2,198,294
Public	393,553	519,257	620,859	840,000	1,169,141	1,519,762	1,694,465	1,829,211	2,104,126
Private	60,064	70,272	90,009	105,000	120,358	110,220	97,389	92,515	94,168

[1] Includes enrollment in universities and in all other 4-year institutions.

[2] Numbers included with universities. Data not available separately.

SOURCES: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Opening Fall Enrollment in Higher Education, 1960: Analytic Report; Digest of Educational Statistics,* 1974 and 1975 Editions; *Projections of Educational Statistics to 1980-81,* 1971 Edition.

Table 1.13.–Degree-credit enrollment in institutions of higher education compared with the population aged 18-24: Fall 1950 to Fall 1974

Year	Population aged 18-24[1]	Enrollment	Enrolled as percent of population group	Year	Population aged 18-24[1]	Enrollment	Enrolled as percent of population group
	(In thousands)				(In thousands)		
1950	16,076	2,297	14.2	1965	20,293	5,526	27.2
1951	15,781	2,107	13.4	1966	21,376	[2]5,928	27.7
1952	15,473	2,139	13.8	1967	22,327	[2]6,406	28.7
1953	15,356	2,236	14.7	1968	22,883	6,928	30.3
1954	15,103	2,453	16.2	1969	23,723	7,484	31.5
1955	14,968	2,660	17.8	1970	24,683	7,920	32.1
1956	14,980	2,927	19.5	1971	25,776	8,116	31.5
1957	15,095	3,047	20.2	1972	25,901	8,265	31.9
1958	15,307	3,236	21.2	1973	26,381	8,520	32.3
1959	15,677	3,377	21.5	1974	26,908	8,560	31.8
1960	16,128	3,583	22.2				
1961	17,004	3,861	22.7				
1962	17,688	4,175	23.6				
1963	18,268	4,495	24.6				
1964	18,783	4,950	26.4				

[1] These bureau of the Census estimates are as of July 1 preceding the opening of the academic year. They include Armed Forces overseas.

[2] Estimated.

NOTE.–Data are for 50 States and the District of Columbia. Beginning in 1953 enrollment figures include resident and extension students; data for earlier years exclude extension students.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Fall Enrollment in Higher Education*, U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25 Nos. 311 and 519.

Table 1.14.–Participation in adult education: Selected years, 1957 to 1975

Population characteristic	Year			
	1957	1969	1972	1975[1]
Total eligible publication[2]	105,560,000	119,598,000	127,263,000	135,000,000
Total adult education participants	8,270,000	13,041,000	15,734,000	18,000,000
Percent of population taking one or more adult education activities	7.8	10.9	12.4	13.3

[1] All figures estimated.

[2] Total eligible population defined as all persons age 17 and older who are not already enrolled as full-time students.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Participation in Adult Education*, 1957, 1969, 1972, and unpublished data.

Table 1.15.–Participants in adult education by age and race: Years ending May 1969 and May 1972

Population characteristic	Year ending May 1969			Year ending May 1972		
	Number (thousands)		Percent of population participating	Number (thousands)		Percent of population participating
	Population	Participants		Population	Participants	
Total adults (17 years and over)						
All races	130,251	13,041	10.0	138,865	15,734	11.3
White	116,410	11,928	10.2	123,639	14,518	11.7
Black	12,595	982	7.8	13,752	1,011	7.4
Other	1,247	131	10.5	1,474	205	13.9
Total 17-34 years						
All races	48,270	6,956	14.4	54,424	8,644	15.9
White	42,349	6,327	14.9	47,670	7,920	16.6
Black	5,413	555	10.3	6,113	629	10.3
Other	508	75	14.8	640	95	14.8
Total 35-54 years						
All races	45,484	5,037	11.0	45,715	5,727	12.5
White	40,680	4,604	11.3	40,719	5,338	13.1
Black	4,319	380	8.8	4,447	295	6.6
Other	483	53	11.0	549	94	17.1
Total 55 years and over						
All races	36,498	1,048	2.9	38,726	1,363	3.5
White	33,380	997	3.0	35,248	1,260	3.6
Black	2,863	97	1.6	3,192	87	2.7
Other	256	4	1.6	286	16	5.6

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 1.16.–Number of local basic administrative units (school districts) and number of public and nonpublic elementary and secondary schools: 1929-30 to 1973-74

School year	School districts[2]	Public schools systems			Nonpublic schools[1]	
		Elementary schools		Secondary schools	Elementary	Secondar
		Total	1-teacher			
1959-60	40,520	91,853	20,213	25,784	13,574	4,061
1961-62	35,676	81,910	13,333	25,350	14,762	4,129
1963-64	31,705	77,584	9,895	26,431	([3])	4,451
1965-66	26,983	73,216	6,491	26,597	15,340	4,606
1967-68	22,010	70,879	4,146	27,011	[4]14,900	[4]4,300
1970-71	17,995	65,800	1,815	25,352	14,372	3,770
1972-73	16,960	64,945	1,475	25,922	[4]14,000	[4]3,700
1973-74	16,730	65,070	1,365	25,906	[4]14,000	[4]3,600

[1] Data for most years are partly estimated.
[2] Includes operating and nonoperating districts.
[3] Data not available.
[4] Estimated.

NOTE.–Beginning in 1959-60, includes Alaska and Hawaii.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems; Fall Statistics of Public Schools;* and *Statistics of Nonpublic Elementary and Secondary Schools.*

Table 1.17.–Public school systems and pupils enrolled, by size of system: 1961-62, 1966-67, 1971-72

Enrollment size of systems (number of pupils)	School systems						Pupils enrolled (in thousands)					
	1961-62		1966-67		1971-72		1961-62		1966-67		1971-72	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	37,025	100.0	23,390	100.0	17,238	100.0	37,800	100.0	43,842	100.0	48,010	100.0
25,000 or more ..	132	.4	170	.7	194	1.1	9,947	26.3	12,590	28.7	14,084	29.3
12,000 to 24,999.	266	.7	350	1.5	423	2.5	4,321	11.4	5,730	13.1	6,938	14.5
6,000 to 11,999.	671	1.8	880	3.8	990	5.7	5,542	14.7	7,293	16.6	8,194	17.1
3,000 to 5,999.	1,495	4.0	1,726	7.4	1,913	11.1	6,266	16.6	7,178	16.4	7,966	16.6
1,800 to 2,999.	1,686	4.6	1,819	7.8	1,952	11.3	3,903	10.3	4,251	9.7	4,541	9.5
1,200 to 1,799.	1,591	4.3	1,636	7.0	1,650	9.6	2,336	6.2	2,416	5.5	2,446	5.1
600 to 1,199.	3,159	8.5	2,838	12.1	2,635	15.3	2,703	7.1	2,437	5.6	2,268	4.7
300 to 599.	3,486	9.4	2,723	11.6	2,367	13.7	1,505	4.0	1,185	2.7	1,037	2.2
150 to 299.	3,081	8.3	2,091	8.9	1,645	9.5	672	1.8	459	1.0	366	.8
50 to 149.	4,214	11.4	2,230	9.5	1,416	8.2	387	1.0	209	.5	136	.3
15 to 49.	6,581	17.8	2,673	11.4	905	5.3	173	.5	71	.2	26	.1
1 to 14.	4,632	12.5	2,386	10.2	770	4.5	44	.1	22	.1	7	([2])
None[1]	6,031	16.3	1,868	8.0	378	2.2	---	---	---	---	---	---

[1] School systems not operating schools.
[2] Less than 0.05 percent.

SOURCES: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Digest of Educational Statistics,* 1963, 1968, and 1973 editions.

Table 1.18.–Numbers and enrollments of institutions of higher education, by institutional type and control: Selected years, 1958 to 1974

Institutional type and control	Number of institutions					Enrollment				
	1958	1962	1966	1970	1974	1958	1962	1966	1970	1974
All Institutions										
Total	1,957	2,100	2,252	2,573	3,038	3,420,414	4,403,936	6,390,000	8,580,887	10,223,729
Public	677	743	806	1,101	1,453	2,033,843	2,752,720	4,349,000	6,428,134	7,988,500
Private	1,280	1,357	1,446	1,472	1,585	1,386,571	1,651,216	2,041,000	2,152,753	2,235,229
4-year institutions[1]										
Total	1,400	1,472	1,567	1,676	1,887	2,894,805	3,630,407	5,064,000	6,357,679	6,912,182
Public	368	377	398	442	552	1,590,962	2,084,463	3,159,000	4,326,162	4,793,697
Private	1,032	1,095	1,169	1,234	1,335	1,303,843	1,545,944	1,904,000	2,031,517	2,118,485
2-year institutions										
Total	557	628	685	897	1,151	525,609	773,529	1,326,000	2,223,208	3,311,547
Public	309	366	408	659	901	442,881	668,257	1,190,000	2,101,972	3,194,803
Private	248	262	277	238	250	82,728	105,272	137,000	121,236	116,744

[1] Includes graduate programs.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Education Directory: Higher Education*, 1958-59, 1962-63, 1966-67, 1970-71, and 1974-75 issues; *Projections of Educational Statistics*, 1969 and 1974 issues.

Table 1.19.–Number and enrollment of institutions of higher education, by size of enrollment: Selected years, 1968 to 1974

Year and size of enrollment	All institutions		Universities		All other 4-year institutions		2-year institutions	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Fall 1968								
Total	2,483	7,513,091	159	2,753,260	1,460	2,967,000	864	1,792,822
Under 200	302	33,637	---	---	188	21,072	114	12,565
200 to 499	341	120,434	---	---	186	65,597	155	54,837
500 to 999	557	411,691	---	---	374	227,668	183	134,023
1,000 to 2,499	627	963,971	1	1,785	405	624,112	221	338,074
2,500 to 4,999	266	947,025	11	44,393	156	547,797	99	354,835
5,000 to 9,999	211	1,492,850	46	339,723	106	751,646	59	401,481
10,000 to 19,999	119	1,624,674	54	783,877	37	474,729	28	366,068
20,000 to 29,999	35	829,804	25	592,979	6	141,833	4	94,992
30,000 or more	25	1,089,005	22	990,512	2	62,546	1	35,947
Fall 1971								
Total	2,606	8,948,645	159	3,035,362	1,513	3,427,362	934	2,485,911
Under 200	255	27,563	---	---	178	19,104	77	8,459
200 to 499	353	124,315	---	---	209	73,176	144	51,139
500 to 999	538	392,730	---	---	356	260,711	182	132,019
1,000 to 2,499	676	1,049,101	1	1,945	420	651,257	255	395,899
2,500 to 4,999	316	1,122,131	11	45,729	166	577,798	139	498,604
5,000 to 9,999	242	1,708,677	43	344,911	117	814,594	82	549,172
10,000 to 19,999	150	2,069,830	48	715,480	53	674,879	49	679,471
20,000 to 29,999	46	1,099,088	31	742,460	11	261,527	4	95,101
30,000 or more	30	1,355,210	25	1,184,847	3	94,316	2	76,047

Table 1.19.–Number and enrollment of institutions of higher education, by size of enrollment: Selected years, 1968 to 1974–Continued

Year and size of enrollment	All institutions		Universities		All other 4-year institutions		2-year institutions	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Fall 1972								
Total	2,665	9,214,860	159	3,048,694	1,542	3,500,379	964	2,665,787
Under 200	262	28,547	---	---	190	19,889	72	9,058
200 to 499	367	130,019	---	---	215	76,209	152	53,810
500 to 999	542	396,178	---	---	366	268,811	176	127,367
1,000 to 2,499	680	1,062,698	1	1,985	409	637,026	270	423,687
2,500 to 4,999	328	1,161,428	10	40,410	175	611,911	143	509,107
5,000 to 9,999	259	1,841,726	46	371,133	120	836,034	93	634,559
10,000 to 19,999	149	2,093,994	46	703,222	52	672,172	51	718,600
20,000 to 29,999	44	1,014,850	27	620,068	11	252,302	6	142,480
30,000 or more	34	1,485,020	29	1,311,876	4	126,025	1	47,119
Fall 1974								
Total	2,747	10,223,729	158	3,231,923	1,586	3,680,259	1,0003	3,311,547
Under 200	279	31,249	---	---	215	23,644	64	7,605
200 to 499	359	130,987	---	---	217	81,632	142	49,355
500 to 999	525	377,318	---	---	361	259,327	164	117,991
1,000 to 2,499	700	1,097,884	1	2,147	417	651,635	282	444,102
2,500 to 4,999	338	1,193,189	11	46,774	177	618,391	150	528,024
5,000 to 9,999	283	1,998,165	39	317,915	124	855,558	120	824,692
10,000 to 19,999	168	2,330,591	44	663,450	58	756,543	66	940,598
20,000 to 29,999	58	1,356,935	34	799,969	13	300,079	11	256,887
30,000 or more	37	1,707,411	29	1,431,668	4	133,450	4	142,293

NOTE.–Includes students whose programs of study are creditable toward a bachelor's or higher degree and also sutdents in 1-, 2-, or 3-year undergraduate programs not creditable toward a bachelor's degree but designed for immediate employment or to provide general education.

SOURCES: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Fall Enrollment in Higher Education*, 1968, 1971, 1972 and 1974 editions.

Table 1.20.–Noncollegiate postsecondary schools offering occupational programs, by type of school and control: 1973

Type of school	Control		
	Total	Public	Private[1]
Total	**8,846**	**893**	**7,953**
Vocational/technical	1,167	579	588
Technical institute	215	52	163
Business/commercial	1,242	1	1,241
Cosmetology/barber	2,405	4	2,401
Flight	1,483	6	1,477
Trade	708	30	678
Home study	130	1	129
Hospital	1,247	170	1,077
Other	249	50	199

[1] Includes proprietary (operated for profit), independent (nonprofit), and schools operated by a religious group.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Directory of Postsecondary Schools With Occupational Programs, 1973*, and unpublished data.

Table 1.21.–Estimated expenditures of educational institutions, by source of funds: 1959-60 to 1975-76[1]

Source of funds by level and control	1959-60	1961-62	1963-64	1965-66	1967-68	1969-70	1971-72	1973-74	1975-76
	AMOUNT, in billions of current dollars								
All levels:									
Total, public and nonpublic	$24.7	$29.9	$35.9	$45.2	$57.2	$70.2	$83.0	$98.3	$120.0
Federal	1.7	2.5	3.3	5.0	6.8	7.4	9.4	10.1	11.8
State	7.2	8.7	10.6	13.1	16.8	22.7	26.3	32.8	40.9
Local	9.7	11.2	12.7	15.1	18.6	22.2	26.4	31.2	37.2
All other	6.1	7.5	9.3	12.0	15.0	17.9	20.9	24.2	30.1
Total, public	19.7	23.4	28.0	35.3	45.5	56.8	67.4	80.3	98.0
Federal	1.2	1.7	2.2	3.6	5.1	5.7	7.5	8.0	9.4
State	7.2	8.6	10.5	13.0	16.7	22.6	26.1	32.5	40.5
Local	9.7	11.2	12.7	15.1	18.6	22.1	26.3	31.1	37.1
All other	1.6	1.9	2.6	3.6	5.1	6.4	7.5	8.7	11.0
Total, nonpublic	5.0	6.5	7.9	9.9	11.7	13.4	15.6	18.0	22.0
Federal	.5	.8	1.1	1.4	1.7	1.7	1.9	2.1	2.4
State	(2)	.1	.1	.1	.1	.1	.2	.3	.4
Local	(2)	(2)	(2)	(2)	(2)	.1	.1	.1	.1
All other	4.5	5.0	6.7	8.4	9.9	11.5	13.4	15.5	19.1
Elementary and secondary schools:									
Total, public and nonpublic	18.0	21.4	24.6	30.0	37.3	45.5	53.8	63.3	75.1
Federal	.7	.9	1.1	2.1	3.0	3.3	4.6	4.6	5.3
State	5.6	6.7	8.0	9.6	12.1	16.3	18.4	22.7	27.4
Local	9.5	11.0	12.4	14.7	18.0	21.3	25.2	29.7	35.1
All other	2.2	2.8	3.1	3.6	4.2	4.6	5.6	6.3	7.3
Total, public[3]	15.9	18.7	21.6	26.5	33.2	41.0	48.3	57.1	67.9
Federal	.7	.9	1.1	2.1	3.0	3.3	4.6	4.6	5.3
State	5.6	6.7	8.0	9.6	12.1	16.3	18.4	22.7	27.4
Local	9.5	11.0	12.4	14.7	18.0	21.3	25.2	29.7	35.1
All other	.2	.1	.1	.1	.1	.1	.1	.1	.1
Total, nonpublic	2.1	2.7	3.0	3.5	4.1	4.5	5.5	6.2	7.2
Federal	---	---	---	---	---	---	---	---	---
State	---	---	---	---	---	---	---	---	---
Local	---	---	---	---	---	---	---	---	---
All other	2.1	2.7	3.0	3.5	4.1	4.5	5.5	6.2	7.2
Institutions of higher education: education:									
Total, public and nonpublic	6.7	8.5	11.3	15.2	19.9	24.7	29.2	35.0	44.9
Federal	1.0	1.6	2.2	2.9	3.8	4.1	4.8	5.5	6.5
State	1.6	2.0	2.6	3.5	4.7	6.4	7.9	10.1	13.5
Local	.2	.2	.3	.4	.5	.9	1.2	1.5	2.1
All other	3.9	4.7	6.2	8.4	10.8	13.3	15.3	17.9	22.8
Total, public[3]	3.8	4.7	6.4	8.8	12.3	15.8	19.1	23.2	30.1
Federal	.5	.8	1.1	1.5	2.1	2.4	2.9	3.4	4.1
State	1.6	1.9	2.5	3.4	4.6	6.3	7.7	9.8	13.1
Local	.2	.2	.3	.4	.6	.8	1.1	1.4	2.0
All other	1.5	1.8	2.5	3.5	5.0	6.3	7.4	8.6	10.9

See footnotes at end of table.

Table 1.21.–Estimated expenditures of educational institutions, by source of funds: 1959-60 to 1975-76[1] –Continued

Source of funds by level and control	1959-60	1961-62	1963-64	1965-66	1967-68	1969-70	1971-72	1973-74	1975-76
				AMOUNT, in billions of current dollars					
Institutions of higher education–Continued									
Total, nonpublic[3]	2.9	3.8	4.9	6.4	7.6	8.9	10.1	11.8	14.8
Federal	.5	.8	1.1	1.4	1.7	1.7	1.9	2.1	2.4
State	(²)	.1	.1	.1	.1	.1	.2	[illegible]	.4
Local	(²)	(²)	(²)	(²)	(²)	.1	.1	.1	.1
All other	2.4	2.9	3.7	4.9	5.8	7.0	7.9	10.7	11.9

[1] In addition to regular schools these figures include "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on military posts. The annual expenditures of "other" elementary and secondary schools were estimated as follows: Public, $200 million annually, 1963-64 to 1974-75; nonpublic, $100 million annually, 1963-64 to 1974-75.

[2] Less than $50 million.

[3] Total expenditures distributed according to the trend of receipts shown in source, appendix B, table B-10.

[4] Less than 0.05 percent.

NOTE.–Data are for 50 States and the District of Columbia for all years.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics*, 1970, 1974, 1975 editions.

Table 1.24.–Current and capital expenditures by institutions of higher education, in current and constant (1974-75) dollars, by control: 1970-71 to 1978-79[1]

(In billions of dollars)

Year and control	Current dollars			Constant (1974-75) dollars		
	Total	Current expend- itures	Capital outlay[3]	Total	Current expend- itures[2]	Capital outlay[3]
1970-71:						
Total	$27.1	$22.8	$4.3	$35.8	$29.7	$6.1
Public	17.7	14.6	3.1	23.4	19.0	4.4
Nonpublic	9.4	8.2	1.2	12.4	10.7	1.7
1971-72:						
Total	29.2	24.9	4.3	36.8	31.4	5.4
Public	19.1	16.0	3.1	24.1	20.2	3.9
Nonpublic	10.1	8.9	1.2	12.7	11.2	1.5
1972-73:						
Total	31.4	27.3	4.1	37.7	33.0	4.7
Public	20.7	17.7	3.0	24.9	21.4	3.5
Nonpublic	10.7	9.6	1.1	12.8	11.6	1.2
1973-74:						
Total	35.0	31.0	4.0	38.6	34.4	4.2
Public	23.2	20.2	3.0	25.6	22.4	3.2
Nonpublic	11.8	10.8	1.0	13.0	12.0	1.0
1974-75:						
Total	40.2	36.4	3.8	40.2	36.4	3.8
Public	26.8	23.9	2.9	26.8	23.9	2.9
Nonpublic	13.4	12.5	.9	13.4	12.5	.9
PROJECTED						
1975-76:						
Total	44.9	41.3	3.6	41.3	37.9	3.4
Public	30.1	27.3	2.8	27.7	25.1	2.6
Nonpublic	14.8	14.0	.8	13.6	12.8	.8
1976-77:						
Total				42.9	39.9	3.0
Public				29.0	26.6	2.4
Nonpublic				13.9	13.3	.6
1977-78:						
Total				44.7	41.7	3.0
Public				30.4	28.0	2.4
Nonpublic				14.3	13.7	.6
1978-79:						
Total				46.5	43.5	3.0
Public				31.7	29.3	2.4
Nonpublic				14.8	14.2	.6

[1] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $95 million in 1974-75. Includes expenditures for interest paid from plant funds. (An estimated $400 million was expended for total interest in 1974-75.)

[2] Includes expenditures for interest from current funds. Excludes expenditures from current funds for capital outlay.

[3] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

NOTE.–Data are for 50 States and the District of Columbia.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1973-84*, 1975 edition.

Table 1.25.–Education expenditures per student by instutions of higher education, by control (constant 1974-75 dollars): 1964-65 to 1974-75

	1964-65[1]	1966-67	1968-69	1970-71	1972-73[1]	1974-75[2]
Total expenditures for student education	**$2,167**	**$2,339**	**$2,634**	**$2,741**	**$2,609**	**$2,794**
Publicly controlled	1,936	2,124	2,393	2,501	2,376	2,547
Privately controlled	2,593	2,776	3,224	3,406	3,301	3,553

[1] Estimated.
[2] Projected.

NOTE.–"Student education" has been revised, beginning with *Projections,* 1974 edition, to exclude extension and nonmajor public services. This applies to base years as well as projections.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1984-85,* 1975 edition, and unpublished data.

Table 2.1.–Number of high school graduates compared with population 17 years of age: 1869-70 to 1973-74

School year	Population 17 years old[2]	High school graduates[1]			Number graduated per 100 persons 17 years of age
		Total	Males	Females	
1869-70 ..	815,000	16,000	7,064	8,936	2.0
1879-80 ..	946,026	23,634	10,605	13,029	2.5
1889-90 ..	1,259,177	43,731	18,549	25,182	3.5
1899-1900	1,489,146	64,883	38,075	56,808	6.4
1909-10 ..	1,786,240	156,429	63,676	92,753	8.8
1919-20 ..	1,855,173	311,266	123,684	187,582	18.2
1929-30 ..	2,295,822	668,904	300,376	358,528	29.0
1939-40 ..	2,403,074	1,221,475	578,718	642,757	50.8
1941-42 ..	2,425,574	1,242,375	576,717	665,650	51.2
1943-44 ..	2,410,380	1,019,233	423,971	595,262	42.3
1945-46 ..	2,254,738	1,080,033	466,926	613,107	47.9
1947-48 ..	2,202,927	1,180,908	562,863	627,049	54.0
1949-50 ..	2,034,450	1,198,700	570,700	629,000	59.0
1951-52 ..	2,040,800	1,196,500	569,200	627,300	58.0
1953-54 ..	2,128,600	1,276,100	612,500	663,600	60.0
1955-56 ..	2,270,000	1,414,800	679,500	735,300	62.3
1957-58 ..	2,324,000	1,506,900	725,500	780,400	64.8
1959-60 ..	2,862,000	1,864,000	898,000	966,000	68.1
1961-62 ..	2,758,000	1,925,000	941,000	984,000	69.5
1963-64 ..	3,001,000	2,290,000	1,121,000	1,189,000	76.3
1965-66 ..	3,515,000	2,632,000	1,308,000	1,324,000	74.9
1967-68 ..	3,521,000	2,702,000	1,341,000	1,361,000	76.7
1969-70 ..	3,825,343	2,896,000	1,433,000	1,463,000	75.7
1971-72 ..	3,967,000	3,006,000	1,490,000	1,518,000	78.0
1973-74 ..	4,096,000	3,069,000	1,512,000	1,557,000	74.9

[1] Includes graduates of public and nonpublic schools.

[2] Data from Bureau of the Census.

NOTE.–Beginning in 1959-60, includes Alaska and Hawaii.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems: Statistics of Public Elementary and Secondary Day Schools, Fall 1974; Statistics of Nonpublic Elementary and Secondary Schools;* and unpublished data.

Table 2.2.–High school graduation rate, by sex: selected years, 1949-50 to 1975-76

School year	Population aged (17 + 18)[1] (thousands)			High school graduates (thousands)[1]			Graduates as a percent of the population aged (17 + 18)[1]		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1949-50	2,115	1,066	1,049	1,200	571	629	56.7	53.6	60.0
1953-54	2,150	1,080	1,070	1,279	615	664	59.5	56.9	62.1
1957-58	2,398	1,210	1,188	1,513	729	784	63.1	60.2	66.0
1961-62	2,771	1,402	1,369	1,925	941	984	69.5	67.1	71.9
1965-66	3,515	1,784	1,731	2,632	1,308	1,325	74.9	73.3	76.5
1969-70	3,831	1,946	1,885	2,896	1,433	1,463	75.6	73.6	77.6
1972-73	4,072	2,067	2,005	3,037	1,501	1,536	74.6	72.6	76.6
1973-74	4,166	2,116	2,050	3,069	1,512	1,557	73.7	71.5	76.0
1974-75[2]	4,223	2,144	2,079	3,139	1,554	1,585	74.3	72.5	76.2
1975-76[3]	4,220	2,141	2,079	3,137	1,552	1,585	74.3	72.5	76.2

[1] Includes graduates of public and nonpublic schools.

[2] Estimated.

[3] Projected.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics, to 1984-85*, 1975 edition; and unpublished data.

Table 2.3.–Associate degrees conferred by institutions of higher education, by sex of student and by type of degree: 1965-66 to 1971-72

Sex of student and type of degree	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
All associate degrees	**111,607**	**139,183**	**159,441**	**183,279**	**206,023**	**252,610**	**292,119**
Males	63,779	78,356	90,317	105,661	117,432	144,395	166,317
Females....................	47,828	60,827	69,124	77,618	88,591	108,215	125,802
Associate in arts	72,034	88,785	101,269	113,709	127,903	([1])	([1])
Males	39,132	47,984	54,472	62,452	70,113	([1])	([1])
Females....................	32,902	40,801	46,797	51,257	57,790	([1])	([1])
Associate in science	18,928	25,801	31,146	36,454	40,743	([1])	([1])
Males	11,472	15,434	19,252	22,922	24,748	([1])	([1])
Females....................	7,456	10,367	11,894	13,532	15,995	([1])	([1])
All other associate degrees	20,645	24,597	27,026	33,116	37,377	([1])	([1])
Males	13,175	14,938	16,593	20,287	22,571	([1])	([1])
Females....................	7,470	9,659	10,433	12,829	14,806	([1])	([1])

[1] Data not available.

NOTE.–Associate degrees are based on at least 2 but less than 4 years of work beyond high school. Except for the years 1965-66 and 1970-71, respondents have been asked to report only degrees which are based on at least 2 years of work that is wholly or chiefly creditable towards a bachelor's degree.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Associate Degrees and Other Formal Awards Below the Baccalaureate.*

Table 2.4.–Formal awards based on organized occupational curriculums at the technical or semiprofessional level, in institutions of higher education, by type of curriculum and by sex: 1967-68 to 1971-72

Curriculum	1967-68			1969-70			1971-72		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
All curriculums	**88,082**	**46,538**	**41,544**	**124,327**	**65,766**	**58,561**	**190,039**	**101,423**	**88,616**
Science and engineering-related curriculums	45,789	27,777	18,012	66,972	38,316	28,656	107,946	60,764	47,182
Mechanical and engineering technologies	22,686	22,379	307	28,959	28,648	311	44,145	43,530	615
Mechanical engineering, general	3,745	3,734	11	9,391	9,322	69	2,925	2,865	60
Aeronautical and aviation	1,400	1,384	16	1,672	1,652	20	2,656	2,601	55
Engineering graphics	---	---	---	---	---	---	2,907	2,844	63
Architectural drafting	1,872	1,835	37	2,656	2,603	53	2,369	2,297	72
Chemical	426	357	69	556	484	72	529	466	63
Automotive	---	---	---	---	---	---	5,109	5,094	15
Diesel	---	---	---	---	---	---	835	835	---
Welding	---	---	---	---	---	---	1,543	1,548	---
Civil	1,103	1,100	3	1,537	1,530	7	2,095	2,033	12
Electronics and machine	7,772	7,743	29	8,784	8,756	28	9,129	9,101	28
Electromechanical	---	---	---	---	---	---	1,530	1,524	6
Industrial	1,350	1,317	33	2,071	2,047	24	2,313	2,275	38
Textile	---	---	---	[illegible]	---	---	247	103	141
Instrumentation	120	120	---	[illegible]	226	1	189	187	2
Mechanical	---	---	---	---	---	---	2,678	2,666	12
Nuclear	14	14	---	38	35	3	79	70	9
Construction and building	---	---	---	---	---	---	4,927	4,917	10
All other mechanical engineering technologies	6,092	4,775	109	2,027	1,993	34	2,083	2,054	29
Natural science technologies	3,292	2,487	805	4,748	3,717	1,031	9,418	6,919	2,499
Natural science, general	---	---	---	---	---	---	795	564	231
Agriculture	1,648	1,514	134	2,596	2,359	237	3,321	2,955	366
Forestry and wildlife	564	560	4	727	726	1	1,523	1,495	23
Food services	---	---	---	---	---	---	886	577	309
Home economics	723	80	643	841	95	746	1,210	32	1,173
Marine and oceanographic	---	---	---	---	---	---	334	309	25
Laboratory, general	---	---	---	---	---	---	162	68	94
Sanitation and public health inspection	---	---	---	---	---	---	632	518	114
All other natural science technologies	357	333	24	584	537	47	555	401	154
Health services and paramedical technologies	16,903	987	15,916	26,778	1,622	25,156	45,412	4,412	41,000
Health services assistant, general	---	---	---	---	---	---	202	52	150
Dental assistant	1,013	4	1,009	1,663	4	1,659	2,779	38	2,741
Dental hygiene	1,555	8	1,547	2,229	12	2,217	3,113	44	3,069
Dental laboratory	299	82	217	362	127	235	374	268	106
Medical or biological laboratory assistant	829	137	692	970	160	810	1,826	368	1,458
Animal laboratory assistant	---	---	---	---	---	---	162	60	102
Radiologic	587	109	478	647	155	492	1,727	550	1,177
Nursing, R.N.	6,930	211	6,719	11,730	462	11,268	18,211	886	17,325
Nursing, practical	4,380	242	4,138	6,102	90	6,012	9,939	250	9,689
Occupational therapy	52	3	49	166	22	144	287	22	265
Surgical	7	1	6	133	21	112	423	65	358
Optical	---	---	---	---	---	---	146	94	52
Medical record	---	---	---	---	---	---	447	18	429
Medical assistant and medical office assistant	---	---	---	---	---	---	1,828	69	1,759
Inhalation therapy	---	---	---	---	---	---	982	545	437
Psychiatric	---	---	---	---	---	---	842	232	610
Electro diagnostic	---	---	---	---	---	---	55	6	49
Institutional management	---	---	---	---	---	---	225	135	90
Physical therapy	---	---	---	---	---	---	355	60	295
All other health services and paramedical technologies	[illegible]	190	1,061	2,776	569	2,207	1,489	650	839

Table 2.4.–Formal awards based on organized occupational curriculums at the technical or semiprofessional level in institutions of higher education, by type of curriculum and by sex: 1967-68 to 1971-72–Continued

Curriculum	1967-68			1969-70			1971-72		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Data-processing technologies	2,908	1,924	984	6,487	4,329	2,158	8,971	5,903	3,068
Data processing, general	---	---	---	---	---	---	5,669	3,793	1,876
Key punch operator and other input preparation	---	---	---	---	---	---	402	39	363
Computer programmer	---	---	---	---	---	---	2,198	1,318	880
Computer operator and peripheral equipment operation	---	---	---	---	---	---	431	252	179
Data processing equipment maintenance	---	---	---	---	---	---	104	104	---
All other data processing technologies	---	---	---	---	---	---	167	125	42
Nonscience- and nonengineering-related curriculums	42,293	18,761	23,532	57,355	27,450	29,905	82,093	40,659	41,434
Business and commerce technologies	35,946	15,370	20,576	45,820	20,939	24,881	61,077	27,996	33,081
Business and commerce, general	10,156	7,335	2,821	14,666	11,194	3,472	12,781	9,539	3,242
Accounting	4,203	3,115	1,088	4,824	3,436	1,388	6,583	4,342	2,241
Banking and finance	---	---	---	---	---	---	349	242	107
Marking, distribution, purchasing, business, and industrial management	2,158	1,543	615	4,048	2,560	1,488	10,155	7,604	2,551
Secretarial	13,770	280	13,490	15,388	131	15,257	20,335	300	20,035
Personal service	---	---	---	---	---	---	1,297	115	1,182
Photography	---	---	---	---	---	---	619	545	74
Communications and broadcasting	---	---	---	---	---	---	986	776	210
Printing and lithography	---	---	---	---	---	---	600	560	40
Hotel and restaurant management	---	---	---	---	---	---	1,258	920	338
Transportation and public utility	---	---	---	---	---	---	409	329	80
Applied arts, graphic arts, and fine arts	3,433	1,774	1,659	4,249	2,121	2,128	3,873	1,755	2,118
All other business and commerce technologies	2,226	1,323	903	2,645	1,497	1,148	1,832	969	863
All other nonscience- and nonengineering-related curriculums	6,347	3,391	2,956	11,535	6,511	5,024	21,015	12,663	8,353
Public service related, general	---	---	---	---	---	---	504	226	278
Bible study or religion related	762	364	398	642	375	267	929	471	458
Education	1,998	449	1,549	3,218	602	2,616	5,170	852	4,318
Library assistant	107	10	97	313	15	298	571	85	486
Police, law enforcement, corrections	1,840	1,714	126	4,084	3,844	240	9,204	8,462	742
Recreation and social work related	---	---	---	---	---	---	1,965	796	1,169
Fire control	---	---	---	---	---	---	1,205	1,199	6
Public administration and management	---	---	---	---	---	---	86	156	30
Other	1,640	854	786	3,278	1,675	1,603	1,282	416	866

NOTE.–The designation of earned awards by fields used for the 1967-68 and 1969-70 surveys differs from the taxonomy used for the 1971-72 survey. The classifications utilized in this presentation are consistent with those shown in *A Taxonomy of Instructional Programs in Higher Education.* The numbers of formal awards for years 1967-68 and 1969-70 were redistributed to conform as well as possible to the new taxonomy.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Associate Degrees and Other Formal Awards Below the Baccalaureate, 1967-68, 1969-70, 1971-72.*

Table 2.5.–College graduation rate, by sex: Selected years, 1960-61 to 1973-74

School year	Population 21 years of age (thousands)[1]			Bachelor's degrees conferred (thousands)			Degrees as a percent of the population 21 years of age		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1960-61	2,224	1,085	1,139	368	227	141	16.6	20.9	12.4
1962-63	2,438	1,194	1,244	417	246	171	17.1	20.6	13.7
1967-68	2,859	1,361	1,498	632	357	275	22.1	26.3	18.3
1970-71	3,365	1,613	1,752	840	476	364	25.0	29.5	20.8
1973-74	[2]3,719	1,855	1,864	946	527	419	25.4	28.4	23.8

[1] Population beginning of school year.

[2] Estimated.

SOURCES: Bureau of the Census, *Current Population Studies*, Series P-25, Numbers 519 and 529; and U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Earned Degrees Conferred*. 1975 edition.

Table 2.6.–Bachelor's and Master's degrees earned, by sex: 1940 to 1974

Year	Bachelor's degrees			Master's degrees		
	Total	Male	Female	Total	Male	Female
1940	[1]186,500	[1]109,546	[1]76,954	26,731	16,508	10,223
1950	405,060	302,429	102,631	58,219	41,237	16,982
1960	368,323	229,718	138,677	74,497	50,937	23,560
1961	365,857	227,362	141,495	81,690	55,267	26,423
1962	387,830	233,821	154,009	88,414	59,710	28,704
1963	416,421	245,622	170,799	95,470	64,198	31,272
1964	466,486	269,861	196,625	105,551	70,339	35,211
1965	501,248	288,538	212,710	117,152	77,544	39,608
1966	520,248	299,196	221,052	140,548	93,063	47,485
1967	558,075	322,171	235,904	157,707	103,092	54,615
1968	631,923	357,270	274,653	176,749	113,519	63,230
1969	728,167	409,881	318,286	193,756	121,531	72,225
1970	791,510	450,234	341,276	208,291	125,624	82,667
1971	839,730	475,594	364,136	230,509	138,146	92,363
1972	887,273	500,590	386,683	251,633	149,550	102,083
1973[2]	922,130	517,980	404,150	263,340	154,480	108,860
1974[2]	945,870	527,390	418,480	277,030	157,840	119,190

[1] Includes first-professional degrees.

[2] Preliminary data rounded to 10's.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics*, 1975; *Earned Degrees Conferred by Higher Educational Institutions*, 1949/50 and 1959/60.

Table 2.7.– Doctor's and First-professional degrees earned, by sex: 1950-1974

Year	Doctor's degrees (except first-professional)			First-professional degrees		
	Total	Male	Female	Total	Male	Female
1950	6,633	5,990	643	[1]28,674	[1]27,390	[1]1,381
1960	9,829	8,801	1,028	[1]26,566	[1]25,786	[1]780
1961	10,575	9,463	1,112	26,391	25,715	676
1962	11,622	10,377	1,245	26,457	25,686	771
1963	12,822	11,448	1,374	27,097	26,260	837
1964	14,490	12,955	1,535	27,667	26,815	852
1965	16,467	14,692	1,775	28,755	27,748	1,007
1966	18,237	16,121	2,116	30,799	29,657	1,142
1967	20,617	18,163	2,454	32,472	31,178	1,294
1968	23,089	20,183	2,906	34,787	33,237	1,550
1969	26,188	22,752	3,436	36,018	34,499	1,519
1970	29,866	25,890	3,976	35,724	33,940	1,784
1971	32,107	27,530	4,577	37,946	35,544	2,402
1972	33,363	28,090	5,273	43,411	40,723	2,688
1973[2]	34,630	28,450	6,180	50,100	46,570	3,530
1974[2]	33,810	27,360	6,450	53,660	48,390	5,270

[1] For 1950, excludes first-professional degrees in chiropody and podiatry, which are included with the bachelor's degrees. For 1950 and 1960, includes some bachelor's degrees in theology.

[2] Preliminary data rounded to 10's.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics*, 1975 edition, *Associate Degrees and Other Formal Awards Below the Baccalaureate*, 1965/66 to 1970/71; *Earned Degrees Conferred by Higher Educational Institutions*, 1949/50 and 1959/60.

Table 2.8.–Earned degrees by field of study and level: 1954-55, 1964-65, and 1974-75

Field of study	1954-55	1964-65	1974-75[1]
Total Bachelor's	**[2]287,401**	**501,248**	**944,000**
Natural sciences	57,842	108,169	158,480
Mathematics and statistics	4,034	19,460	21,050
Computer and information sciences	([3])	87	5,060
Engineering	22,589	38,514	47,090
Physical sciences	11,202	17,859	21,010
Biological sciences	12,847	24,872	48,080
Agricultural and natural resources	7,170	7,377	16,190
Social sciences	41,527	99,240	231,870
Social sciences	34,459	82,224	152,430
Psychology	5,532	14,527	53,630
Public affairs and services	([3])	1,866	24,610
Library sciences	1,536	623	1,200
Humanities	35,182	80,197	148,390
Architecture and environmental design	([3])	2,333	8,050
Fine and applied arts	16,317	17,391	39,790
Foreign languages	3,548	13,859	18,430
Communications	([3])	2,814	17,920
Letters	15,317	43,800	64,200
Other fields	152,850	213,642	405,260
Education	53,254	116,529	183,260
Health professions	22,523	15,444	42,370
Accounting	([3])	14,886	32,450
Other business and management	([3])	48,169	102,290
Other	77,073	18,614	44,890
Total Master's	**58,204**	**117,152**	**291,710**
Natural sciences	10,879	26,636	38,930
Mathematics and statistics	761	4,196	4,880
Computer and information sciences	([3])	146	2,560
Engineering	4,484	12,093	15,650
Physical sciences	2,602	4,906	6,050
Biological sciences	1,668	3,600	6,800
Agricultural and natural resources	1,364	1,695	2,990
Social sciences	5,688	18,696	48,070
Social sciences	4,108	9,619	18,970
Psychology	1,293	2,187	6,970
Public affairs and services	([3])	3,679	13,360
Library sciences	287	3,211	8,770
Humanities	5,928	14,203	30,990
Architecture and environmental design	([3])	373	2,900
Fine and applied arts	3,184	4,244	8,430
Foreign languages	789	2,690	4,140
Communications	([3])	384	2,830
Letters	1,955	6,512	12,690
Other fields	35,709	57,617	173,720
Education	27,620	43,323	119,710
Health professions	1,750	2,494	10,420
Accounting	([3])	617	2,080
Other business and management	([3])	7,073	31,640
Other	6,339	4,110	9,870

See footnotes at end of table.

Table 2.8.–Earned degrees by field of study and level: 1954-55, 1964-65, and 1974-75–Continued

Field of study	1954-55	1964-65	1974-75[1]
Total Doctor's	**8,840**	**16,467**	**36,100**
Natural sciences	4,067	8,235	13,160
Mathematics and statistics	250	682	1,050
Computer and information sciences	(3)	6	290
Engineering	599	2,133	3,540
Physical sciences	1,715	2,829	3,610
Biological sciences	996	1,928	3,670
Agricultural and natural resources	507	657	1,000
Social sciences	1,759	2,776	7,240
Social sciences	1,067	1,846	4,250
Psychology	688	839	2,070
Public affairs and services	(3)	79	260
Library sciences	4	12	60
Humanities	800	1,848	4,750
Architecture and environmental design	(3)	10	80
Fine and applied arts	256	428	630
Foreign languages	187	376	1,010
Communications	(3)	17	180
Letters	357	1,017	2,850
Other fields	2,214	3,608	10,950
Education	1,470	2,682	8,020
Health professions	189	173	600
Accounting	(3)	32	60
Other business and management	(3)	297	1,050
Other	555	424	1,220
Total First-professional	(3)	**28,755**	**54,700**
Medicine	(3)	7,304	12,730
Dentistry	(3)	3,108	4,890
Other health professions	(3)	1,794	3,340
Law	(3)	11,782	28,290
Theology and others	(3)	4,767	5,450

[1] Estimated.

[2] Bachelor's degrees for 1954-55 include first-professional degrees.

[3] Number of degrees not available separately.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1973-74* and *Projections of Educational Statistics to 1984-85.*

Table 2.9.–Performance in subject areas, by age level and by sex: Selected years

Subject area, year of assessment, and sex[1]	Age level			
	9-year-olds	13-year-olds	17-year-olds	Adults
Mathematics, 1972-73				
National norm	36.7	51.3	57.1	59.3
Male	0.7	0.4	2.3	5.4
Female	–0.7	–0.4	–2.2	–5.0
Science, 1972-73				
National norm	68.2	58.3	47.0	51.2
Male	0.8	1.5	2.8	5.2
Female	–1.0	–1.4	–2.4	–4.7
Social studies, 1971-72				
National norm	72.2	66.2	73.8	72.4
Male	0.4	0.1	0.6	2.3
Female	–0.4	–0.1	–0.6	–2.2
Citizenship, 1969-70				
National norm	64.1	63.1	61.8	60.4
Male	0.1	0.3	0.4	1.4
Female	–0.2	–0.4	–0.4	–1.3
Writing, 1969-70				
National norm	28.3	55.4	62.5	58.4
Male	–4.0	–3.4	–3.4	–2.3
Female	4.1	3.2	3.0	2.1
Reading, 1970-71				
National norm	70.4	68.1	77.5	83.5
Male	–2.4	–2.5	–2.0	0.2
Female	2.3	2.3	1.9	–0.3
Literature, 1970-71				
National norm	43.9	53.4	61.3	64.0
Male	–0.7	–1.6	–1.1	0.0
Female	0.6	1.6	1.0	–0.1
Music, 1971-72				
National norm	53.8	48.9	49.2	41.5
Male	–0.3	–0.9	–0.9	–0.9
Female	0.3	0.9	0.8	0.9

[1] Figures for sex indicate median difference in percentage points from the national norm.

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colorado, Newsletter VIII, No. 5, October 1975.

Table 2.10.–Reading performance of 17-year olds: 1971 to 1974

Selected characteristics	Mean percentages, correct responses, by year		
	1971	1974	Change
National total	**89.15**	**91.16**	+2.01
Region			
Northeast	90.20	91.63	+1.43
Southeast	85.35	88.08	+2.73
Central	91.19	93.26	+2.07
West	88.77	90.33	+1.56
Sex			
Male	87.75	90.24	+2.49
Female	90.50	92.02	+1.52
Race			
White	91.06	93.16	+2.10
Black	75.49	79.08	+3.59
Parental education			
No high school	80.71	85.36	+4.65
Some high school	85.01	87.95	+2.94
Graduate high school	89.32	90.66	+1.34
Post-high school	93.23	94.01	+0.78
Size and type of community			
Low metro	83.54	87.17	+3.63
High metro	94.27	95.89	+1.62
Main big city	89.34	91.90	+2.56
Urban fringe	90.13	92.40	+2.27
Medium city	90.13	91.24	+1.11
Small places	88.69	91.08	+2.39
Extreme rural	87.13	91.24	+4.11

NOTE.–See Technical Note D.

SOURCE: National Assessment of Education Progress, Education Commission of the States, Denver, Colo., *Functional Literacy–Basic Reading Performance*, 1975.

Table 2.11.–Changes in writing performance, for 9-, 13-, and 17-year-olds: 1969-70 to 1973-74

Holistic score points	Percentages of participants at each holistic score point, by age of participant and year								
	9-year-old			13-year-olds			17-year-olds		
	1970	1974	Diff.	1969	1973	Diff.	1969	1974	Diff.
Average score	**3.8**	**4.1**	**0.3**	**5.0**	**4.7**	**–0.3**	**5.1**	**4.9**	**–0.2**
Lowest score 1	3.6	2.9	–.7	1.1	2.2	+1.1	0.3	1.9	+1.6
2	19.2	12.9	–6.3	8.5	7.1	–1.4	1.8	5.1	+3.3
3	25.8	27.3	+1.5	10.8	14.1	+3.3	12.6	14.4	+1.8
4	19.6	19.5	–.1	13.5	20.5	+7.0	15.7	17.0	+1.3
5	12.7	16.3	+3.5	25.4	20.6	–4.8	27.6	23.1	–4.5
6	12.7	14.1	+1.4	21.8	22.8	+1.0	26.3	21.0	–5.3
7	4.3	4.8	+.5	13.1	11.3	–1.8	13.2	13.7	+.5
Highest score 9	2.0	2.2	+.2	5.8	1.4	–4.4	2.5	3.1	+.6

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colo., *Writing Mechanics, 1969-1974*, October 1975.

Table 2.12.–National median percentages correct on mathematics exercises for selected age groups, by content area and by sex: 1972-73

Content area and sex	Age in years			
	9	13	17	Adult
Overall performance	Percentage correct			
Total	36.7	51.3	57.1	59.3
Male	39.3	53.8	62.6	65.7
Female	35.3	51.4	52.7	53.4
Numbers and numeration				
Total	38.3	59.7	69.6	64.6
Male	38.4	59.5	70.3	70.6
Female	40.1	61.1	68.9	60.5
Measurement				
Total	46.0	62.6	64.6	72.7
Male	49.6	64.7	70.2	79.1
Female	43.2	60.3	59.2	68.0
Geometry				
Total	28.2	51.3	57.1	52.9
Male	30.7	55.6	65.6	62.1
Female	25.2	46.7	49.0	47.8
Variables and relationships				
Total	(1)	38.9	37.7	49.0
Male		39.8	40.6	54.8
Female		39.0	34.8	43.6
Probability and statistics				
Total	(1)	(1)	27.4	32.1
Male			31.7	38.0
Female			23.5	25.7
Consumer math				
Total	(1)	48.7	54.2	61.7
Male		46.9	56.0	67.6
Female		47.6	50.1	55.8

[1] Not enough exercises in this content area for a meaningful summary.

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colo., unpublished data.

Table 2.14.–Performance on selected exercises involving consumer situations, by age group: 1972-73

Exercise	National percent correct		
	Age 13	Age 17	Adult
Cash vs. credit price	(1)	56	68
Difference between 10% and 15% discount	49	76	86
Difference in 3% and 4% sales tax	(1)	(1)	56
Rice, lowest cost per ounce	25	34	39
Tuna fish, lowest cost per ounce	(1)	40	45

[1] Exercises were not considered relevant to this age group.

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colo., *Mathematics: An Overview*, October 1975.

Table 2.15.– Performance on mathematics exercises, for selected age groups by content area and by race: 1972-73

Content area and race	Median percent correct, by age group			
	9	13	17	Adult
All mathematics exercises				
National	36.7	51.3	57.1	59.3
Black	19.5	27.6	29.8	26.7
White	40.5	56.5	62.1	63.9
Number of exercises summarized	(163)	(211)	(245)	(179)
Numbers and numeration				
National	38.3	59.7	69.6	64.6
Black	19.8	34.0	43.7	30.9
White	42.5	64.9	74.6	70.8
Number of exercises summarized	(74)	(86)	(74)	(44)
Measurement				
National	46.0	62.6	64.6	72.1
Black	24.1	31.0	34.4	41.7
White	49.5	66.9	70.2	77.9
Number of exercises summarized	(35)	(35)	(29)	(29)
Geometry				
National	28.2	51.3	57.1	52.9
Black	16.0	27.0	29.8	26.7
White	30.7	55.6	62.6	57.7
Number of exercises summarized	(39)	(37)	(37)	(29)
Variables and relationships				
National	([1])	38.9	37.7	49.0
Black		18.4	15.2	19.6
White		43.3	41.6	53.1
Number of exercises summarized		(28)	(50)	(21)
Probability and statistics				
National	([1])	([1])	27.4	32.1
Black			12.4	12.9
White			30.3	34.6
Number of exercises summarized			(17)	(12)
Consumer math				
National	([1])	48.7	54.2	61.7
Black		19.7	28.0	29.3
White		54.4	58.8	66.8
Number of exercises summarized		(14)	(34)	(41)

[1] Number of exercises in this content area insufficient for a meaningful summary.

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colorado, unpublished data.

Table 3.1.–Major problems with which public schools must deal: 1970 to 1975

Possible problems	Percent of respondents citing problem			
	1970	1972	1974	1975
Lack of discipline	18	23	23	23
Integration/segregation/busing	17	18	16	15
Lack of proper financial support	17	19	13	14
Difficulty of getting "good" teachers	12	14	11	11
Size of school/classes	–	10	6	10
Use of drugs	11	4	13	9
Poor curriculum	6	5	3	5
Crime/vandalism/stealing	–	–	–	4
Lack of proper facilities	11	5	3	3
Pupils' lack of interest	([1])	–	2	3
Parents' lack of interest	3	6	6	2
School board policies	2	–	4	1
Transportation	2	–	–	–
School administration	1	–	–	–
There are no problems	5	2	3	5
Miscellaneous	3	9	4	12
Don't know/no answer	18	12	17	10

[1] Less than 1%.

NOTE.–Totals add to more than 100% because of multiple answers.

SOURCES: Phi Delta Kappa, Inc., *The Gallup Polls of Attitudes Toward Education 1963-73*, and *Phi Delta Kappan*, September 1974 and December 1975.

Table 3.2.–Confidence of the public in people running institution in the United States: 1973 to 1975

Year and institution	Response in designated category											
	Number						Percent distribution					
	Total	A great deal	Only some	Hardly any	Don't know	No answer	Total	A great deal	Only some	Hardly any	Don't know	No answer
1973												
Major companies	1,504	439	799	162	100	4	100.0	29.2	53.1	10.8	6.6	.3
Education	1,504	553	798	123	21	9	100.0	36.8	53.1	8.2	1.4	.6
Executive branch, federal govt.	1,504	439	755	275	29	6	100.0	29.2	50.2	18.3	1.9	.4
Congress	1,504	352	883	223	39	7	100.0	23.4	58.7	14.8	2.6	.5
Medicine	1,504	809	587	86	14	8	100.0	53.8	39.0	5.7	.9	.5
Scientific community	1,504	552	704	97	142	9	100.0	36.7	46.8	6.4	9.4	.6
1974												
Major companies	1,484	465	750	215	53	1	100.0	31.3	50.5	14.5	3.6	.1
Education	1,484	727	612	121	20	4	100.0	49.0	41.2	8.2	1.3	.3
Executive branch, Federal Govt.	1,484	202	630	618	32	2	100.0	13.6	42.5	41.6	2.2	.1
Congress	1,484	253	874	309	45	3	100.0	17.0	58.9	20.8	3.0	.2
Medicine	1,484	895	499	66	22	2	100.0	60.3	33.6	4.4	1.5	.1
Scientific community	1,484	667	558	99	157	3	100.0	44.9	37.6	6.7	10.6	.2
1975												
Major companies	1,490	286	801	314	82	7	100.0	19.2	53.8	21.1	5.5	.5
Education	1,490	460	812	190	26	2	100.0	30.9	54.5	12.8	1.7	.1
Executive branch, Federal Govt.	1,490	198	813	439	38	2	100.0	13.3	54.6	29.5	2.6	.1
Congress	1,490	198	872	374	43	3	100.0	13.3	58.5	25.1	2.9	.2
Medicine	1,490	751	597	117	22	3	100.0	50.4	40.1	7.9	1.5	.2
Scientific community	,1490	560	672	96	159	3	100.0	37.5	45.1	6.4	10.7	.2

NOTE.–See Technical Note C.

SOURCE: National Opinion Research Center, University of Chicago, 6030 South Ellis Avenue, Chicago, Illinois 60637, General Social Survey, 1973, 1974, 1975.

Table 3.3.–Perceptions of the public on spending levels for education: 1973 to 1975

Question and possible responses	Number			Percent distribution		
	1973	1974	1975	1973	1974	1975
"I'd like you to tell me whether you think we've spending too much money on [this problem], too little money, or about the right amount:						
Improving the nation's educational system"						
Total	1,504	1,484	1,490	100.0	100.0	100.0
Too little money	734	747	728	48.8	50.3	48.9
About the right amount	565	545	525	37.6	36.7	35.2
Too much money	135	126	167	9.0	8.5	11.2
Don't know	65	56	67	4.3	3.8	4.5
No answer	5	10	3	.3	.7	.2

NOTE.–See Technical Note C.

SOURCE: National Opinion Research Center, University of Chicago, 6030 South Ellis Avenue, Chicago, Illinois, 60637, *General Social Survey*, 1973, 1974, 1975.

Table 3.4.–Opinions of White respondents on sending their children to integrated schools: 1972, 1974, 1975

Question item and responses	Answers of White respondents percentages		
	1972	1974	1975
Objection to school where a few children are Blacks			
Total	100.0	100.0	100.0
Yes	7.1	5.[illegible]	6.8
No	91.9	94.3	91.5
Don't know	0.1	0.5	1.7
Objection to school where half of children are Blacks			
Total	100.0	100.0	100.0
Yes[1]	23.2	28.3	27.3
No	74.0	68.8	69.1
Don't know	2.8	2.9	3.6
Objection school where more than half of children are Blacks			
Total	100.0	100.0	100.0
Yes[2]	53.2	60.0	57.6
No	41.9	35.3	37.2
Don't know	4.9	4.7	5.2

[1] Includes those with an objection to sending their children to school where a few children are Black.

[2] Includes those with an objection to sending thier children to school where a few children are Black or where a half of the children are Black.

NOTE.–See Technical Note C.

SOURCE: National Opinion Research Center, University of Chicago, 6030 South Ellis Avenue, Chicago, Illinois, 60637, *General Social Survey*, 1973, 1974, 1975.

Table 3.5.–Opinions of the public on interdistrict busing: 1972, 1974, 1975

Question item and possible responses	Percent distribution		
	1972	1974	1975
In general do you favor or oppose the busing of Black and White school children from one school district to another?			
Total	100.0	100.0	100.0
Favor	19.5	20.1	17.2
Oppose	76.6	76.2	78.1
Don't know	3.9	3.7	4.7

NOTE.–See Technical Note C.

SOURCE: National Opinion Research Center, University of Chicago, 6030 South Ellis Avenue, Chicago, Illinois, 60637, *General Social Survey*, 1972, 1974, 1975.

Table 3.6.–Teachers' estimates of student violence in school: 1973, 1974, 1975

Questions on student violence and responses by public school teachers	Percent		
	1973	1974	1975
Q: Have you as a teacher been physically attacked or have you have had your personal property maliciously damaged by a student this year?			
a. Yes, I was physically attacked	3.3	3.0	2.4
b. Yes, I had my personal property maliciously damaged	7.4	11.4	10.5
c. No	90.5	87.2	88.0
Q: Generally, is student violence a problem in your school?			
a. Yes, a major problem	–	3.2	3.7
b. Yes a minor problem	–	20.0	22.4
c. No	–	76.7	73.8

SOURCE: National Education Association, NEA Research, Teacher Opinion Polls. Reprinted with permission of NEA.

Table. 3.7.–Opinions of the public on the use of drugs as a serious local youth problem, by sex, race, age, education, community size, and region: 1975

Question: Is the use of drugs by young people a serious problem in this community?	Percent		
	Yes	No	Don't know/ no answer
National Totals	58	27	15
Sex			
Males	56	29	15
Females	60	25	15
Race			
White	57	28	15
Nonwhite	64	21	15
Age			
18 to 29 years	56	32	12
30 to 49 years	61	27	12
50 years and over	57	22	21
Education			
Elementary grades	62	21	17
High school	59	27	14
College	53	31	16
Community size			
1 million and over	54	26	20
500,000 to 999,999	57	25	18
50,000 to 499,999	62	23	15
2,500 to 49,999	69	21	10
Under 2,500	51	35	14
Region			
East	51	31	18
Midwest	63	24	13
South	59	27	14
West	60	24	16

SOURCE: Phi Delta Kappa, Inc., Bloomington, Ind., The Gallup Survey of Public Attitudes Toward the Public Schools, 1975.

Table 3.8.–Opinions of the public on requiring student attendance at programs on effects of drugs and alcohol: 1975

Q: Should the schools in this community require students to attend a program on the effects of drugs and alcohol?	Percent			
	National totals	No children in schools	Public school parents	Parochial school parents
Yes	84	81	87	88
No	11	12	10	8
Don't know/no answer	5	7	3	4

SOURCE: Phi Delta Kappa, Inc., Bloomington, Ind., The Gallup Survey of Public Attitudes Toward the Public Schools, 1975, *Phi Delta Kappan*, December 1975.

Table 3.9.–Reading performance on specific practical exercises: 1974

Population characteristics	Percent					
	Insurance policy		Application		Traffic ticket	
	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted
Superior readers[1]	100.0	36.7	100.0	53.5	100.0	60.0
National total	47.7	17.5	81.7	43.7	77.7	46.6
Region						
Southeast	29.7	10.9	79.6	42.6	70.2	42.1
West	39.2	14.4	77.2	41.3	77.3	46.4
Central	59.5	21.8	83.4	44.6	85.7	51.4
Northeast	52.0	19.1	84.9	45.4	74.7	44.8
Sex						
Male	62.9	23.1	79.3	42.4	77.8	46.7
Female	32.2	11.8	89.5	47.8	77.5	46.5
Race						
Black	27.2	10.0	68.4	36.6	45.8	27.5
White	52.0	19.1	83.6	44.7	85.3	51.2
Parental education						
No high school	36.2	13.3	79.3	42.4	50.0	30.0
Some high school	39.2	14.4	85.8	45.9	71.3	42.8
Graduated high school	45.8	16.8	80.0	42.8	76.8	46.1
Post high school	53.7	19.7	84.5	45.2	85.2	51.1
Size and type of community						
Low metro	35.4	13.0	86.2	46.1	60.2	36.1
Extreme rural	39.8	14.6	82.6	44.2	85.2	51.1
Small place	52.9	19.4	77.4	41.4	73.7	44.2
Medium city	34.9	12.8	71.4	38.2	81.5	48.9
Main big city	75.2	27.6	87.7	46.9	84.2	50.5
Urban fringe	40.9	15.0	89.9	48.1	76.2	45.7
High metro	95.1	34.9	92.1	49.3	97.5	58.5

[1] Refers to a sample of students attaining at least the 95th percentile on the College Entrance Examination Board verbal test or an equivalent standardized reading test; their performance was considered to be the "highest level of performance," hence, it was used as the criteria from which adjusted scores were derived.

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colorado, *Right to Read, Technical Summary*, 1975.

Table 3.11.–High school dropouts, by race and sex: 1967, 1972, and 1973

Dropouts as percent of population

Age	1967				1972				1973			
	Black		White		Black		White		Black		White	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total, 14 to 24 years old	23.9	21.9	11.6	13.1	17.8	17.2	10.7	11.9	17.6	18.9	10.4	11.3
14 and 15 years old .	3.5	4.0	1.5	1.4	2.4	2.7	2.3	2.5	3.1	3.1	1.9	2.8
16 and 17 years old .	11.7	14.6	7.0	9.4	9.4	7.6	7.8	9.6	10.6	10.0	8.7	9.2
18 and 19 years old .	30.6	22.0	15.4	16.3	27.1	21.0	13.5	13.2	27.7	23.0	14.1	15.2
20 to 24 years old ..	42.6	36.1	18.8	19.0	27.2	27.3	15.3	16.6	24.9	29.0	13.7	14.2

NOTE.–Dropouts are persons who are not enrolled in school and who are not high school graduates.

SOURCES: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–23, No. 46, and Series P-20, No. 272.

Table 3.12.–Percent of persons not enrolled in school and not high school graduates, by age, race/ethnic origin, and sex: October 1974

Race/ethnic origin and sex	Total, 14 to 34 years	Age						
		14 and 15 years	16 and 17 years	18 and 19 years	20 and 21 years	22 to 24 years	25 to 29 years	30 to 34 years
All races:								
Total	14.6	2.0	9.4	16.6	15.9	15.3	16.1	21.7
Male	14.0	2.0	9.2	18.7	15.7	13.9	14.7	20.7
Female	15.2	2.0	9.6	14.7	16.0	16.5	17.5	22.6
White:								
Total	13.6	1.8	9.3	15.6	14.3	13.8	14.9	20.0
Male	13.2	1.8	9.4	17.4	14.4	12.9	13.8	19.4
Female	13.9	1.9	9.1	13.9	14.2	14.7	15.9	20.5
Black:								
Total	22.2	3.0	10.4	23.4	26.1	25.8	26.4	36.2
Male	20.6	3.9	8.3	26.9	25.1	22.6	23.9	34.0
Female	23.6	2.1	12.6	20.2	26.9	28.3	28.5	37.9
Spanish Origin:								
Total	35.2	3.9	20.2	29.8	35.1	43.8	45.9	54.4
Male	34.2	2.1	19.6	35.1	39.0	41.3	41.9	55.5
Female	36.1	5.9	20.8	25.1	31.5	46.2	50.1	53.5

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 278.

Table 3.13.–Estimates of school-age children (ages 5-18) with characteristics of one or more of the pupil population groups, and number of participants in Federal programs, by control of school and by pupil population groups: 1972-73

Pupil population group	Estimates of school-age children[1]	Participants[2] in federal programs		
		Total	Public	Nonpublic
Children from low income areas	18,241,624	6,797,275	6,510,442	286,833
Handicapped children	1,580,618	527,591	519,651	7,940
Children from limited- or non-English speaking environments	1,147,396	219,863	212,350	7,513
Children of migratory workers	249,125	190,978	190,957	21
Neglected and delinquent children	134,666	55,299	38,144	17,155
Dropouts, potential dropouts, and former dropouts	–	114,163	109,909	4,254
General elementary and secondary	–	37,759,693	34,905,727	2,853,966

[1] Duplicated counts; children may be reported in as many pupil population groups as necessary to describe their needs for special services.

[2] Counts of participants may be duplicated among pupil population groups, except for the General elementary and secondary population, and are the number of individuals in programs designed to meet the special needs of the population group.

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, Consolidated Program Information Report, unpublished data.

Table 3.14.–Pupils treated primarily as dropouts, potential dropouts, or former dropouts, in Federally aided programs operated by local education agencies, by control of school and by Federally funded services and activities: 1972-73 regular school term[1]

Service or activity	Total	Public		Nonpublic
		Elementary	Secondary	
Total (unduplicated)	81,242	13,380	63,738	4,124
Direct educative services				
Reading (English)	30,622	2,623	25,301	2,698
Other English language arts	15,343	1,208	12,351	1,784
Reading (Non-English)	194	141	53	-0-
Modern/classical foreign languages	250	-0-	250	-0-
English as a 2nd language	1,444	78	1,366	-0-
Cultural enrichment				
Bicultural activities	2,269	181	2,088	-0-
Other	7,558	1,258	6,150	150
Social sciences/social studies	17,176	1,445	15,657	74
Natural sciences/mathematics	25,149	2,698	20,617	1,834
Other direct educ. services	9,132	2,400	6,724	8
Special programs for the handicapped	987	5	982	-0-
Vocational skills/attitudes	43,062	1,538	41,414	110
Textbooks	8,888	318	8,570	-0-
Supporting services				
Guidance/counseling				
Vocational	25,905	389	25,516	-0-
Other	18,390	1,773	14,569	2,048
Testing	14,009	1,246	10,821	1,942
School psychological services	6,717	1,011	5,682	24
Attendance and school social work	30,216	8,599	20,517	1,100
Health services	6,468	348	6,120	-0-
Pupil transportation	12,102	2,069	8,123	1,910
Food service	28,621	3,221	25,400	-0-
Clothing	2,358	250	2,108	-0-
Student subsidies	6,863	645	6,218	-0-
Other pupil services	11,573	3,155	8,388	30
School library resources				
Audiovisual materials	51,055	10,205	39,058	1,792
Printed materials except textbooks	48,358	9,932	36,642	1,784

[1] An estimated 30,000 dropouts participated in Federal programs during the 1973 summer school term.

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Consolidated Program Information Report, unpublished data.

Table 3.15.–Pupils treated primarily as children from low income areas in Federally-aided programs operated by local education agencies, by control of school and by Federally funded services and activities: 1972-73 regular term

Service or Activity	Total	Public			Nonpublic
		Prekindergarten and kindergarten	Other elementary	Secondary	
Total (unduplicated)	**6,321,444**	**427,698**	**3,961,486**	**1,679,028**	**253,232**
Direct educative services					
Reading (English)	3,763,491	219,975	2,760,444	633,330	149,742
Other English language arts	1,029,213	104,201	644,890	232,552	47,570
Reading (Non-English)	99,035	5,888	64,177	26,171	2,799
Other Non-English language arts	45,741	4,525	30,840	8,143	2,235
Modern/classical foreign languages	14,063	960	3,968	9,135	-0-
English as a 2nd language	138,929	11,528	93,485	22,587	11,329
Bicultural activities	352,573	17,264	271,040	61,479	2,790
Other cultural enrichment	781,446	79,926	551,989	116,556	32,975
Social sciences/social studies	392,731	38,903	264,490	86,016	3,322
Natural sciences/mathematics	1,717,557	126,434	1,225,246	315,669	50,208
Other	851,582	87,151	553,175	190,263	20,993
Special programs for the handicapped	105,435	4,323	66,361	33,265	1,486
Vocational skills and attitudes	776,135	12,922	311,487	448,710	3,016
Textbooks	785,675	58,840	513,451	181,598	31,786
Pupil services					
Guidance/counseling					
Vocational	215,045	4,238	93,524	114,068	3,215
Other	1,008,444	61,879	676,342	247,845	22,378
Testing	1,397,857	107,379	970,582	254,281	65,615
School psychological services	382,393	29,244	263,013	75,437	14,699
Attendance/school social work	1,209,467	101,661	795,522	270,450	41,834
Health services	1,688,250	173,637	1,194,499	281,396	38,718
Pupil transportation	852,860	122,771	526,854	173,509	29,726
Food services	3,855,149	286,025	2,523,524	1,022,910	22,690
Clothing	133,002	11,616	96,898	23,137	1,351
Student subsidies	39,269	1,115	18,656	19,276	222
Special services for the handicapped	77,077	3,895	49,113	20,896	3,173
Other pupil services	698,783	49,375	474,306	162,905	12,197
School library resources					
Audiovisual materials	3,983,432	242,683	2,647,981	964,277	128,491
Printed materials	4,296,134	277,174	2,832,267	1,048,846	137,847

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Consolidated Program Information Report, unpublished data.

Table 3.16.–Number and percent of minority students[1] attending public schools with different racial composition, by geographic area: Fall 1968, Fall 1970, and Fall 1972

Level of isolation	Continental United States[2]			32 northern and western states[3]			6 border states and D.C.[4]			11 southern states[5]		
	1968	1970	1972	1968	1970	1972	1968	1970	1972	1968	1970	1972
Total enrollment	43,353,568	44,910,403	44,646,625	28,579,766	30,131,132	29,916,241	3,730,317	3,724,867	3,742,703	11,043,485	11,054,403	10,987,680
Minority enrollment:												
Number	8,656,434	9,394,184	9,676,373	4,441,516	5,143,639	5,350,300	674,289	690,553	710,818	3,540,629	3,559,992	3,615,255
Percent of total	20.0	20.9	21.7	15.5	17.1	17.9	18.1	18.5	19.0	32.1	32.2	32.9
Minorities, by level of isolation:												
Attending 0-49.9% minority schools:												
Number	2,623,820	3,510,200	3,833,062	1,675,779	1,906,966	2,001,674	217,166	230,621	262,348	730,874	1,372,612	1,569,040
Percent	30.3	37.4	39.6	37.7	37.1	37.4	32.2	33.4	36.9	20.6	38.6	43.4
Attending 50-100% minority schools:												
Number	6,032,615	5,883,983	5,843,309	2,765,737	3,236,670	3,348,625	457,123	459,932	448,471	2,809,755	2,187,377	2,046,213
Percent	69.7	62.6	60.4	62.3	62.9	62.6	67.8	66.6	63.1	79.4	61.4	56.6
Attending 80-100% minority schools:												
Number	4,987,778	4,137,476	3,948,269	2,002,321	2,324,858	2,374,971	406,894	396,939	390,013	2,578,563	1,415,679	1,183,286
Percent	57.6	44.0	40.8	45.1	45.2	44.4	60.3	57.5	54.9	72.8	39.8	32.7
Attending 90-100% minority schools:												
Number	4,561,768	3,475,215	3,282,961	1,686,488	1,930,722	1,985,659	383,693	375,011	364,648	2,491,587	1,169,482	932,654
Percent	52.7	37.0	33.9	38.0	37.5	37.1	56.9	54.3	51.3	70.4	32.9	25.8
Attending 95-100% minority schools:												
Number	4,202,903	2,959,569	2,781,893	1,410,141	1,611,069	1,669,409	368,671	350,967	345,211	2,424,090	997,533	767,273
Percent	48.6	31.5	28.7	31.7	31.3	31.2	54.7	50.8	48.6	68.5	28.0	21.2
Attending 99-100% minority schools:												
Number	3,472,072	2,015,414	1,835,957	907,426	1,018,798	1,057,764	294,963	293,191	278,380	2,269,683	703,825	499,813
Percent	40.1	21.5	19.0	20.4	19.8	19.8	43.7	42.5	39.2	64.1	19.8	13.8
Attending 100% minority schools:												
Number	2,542,805	986,532	787,791	348,320	398,625	369,139	160,552	154,657	153,768	2,033,933	433,250	264,884
Percent	29.4	10.5	8.1	7.8	7.7	6.9	23.8	22.4	21.6	57.4	12.2	7.3

[1] Includes American Indians, Negroes, Orientals, and students with Spanish surnames.

[2] 49 states and the District of Columbia. Excludes Hawaii.

[3] Alaska, Arizona, California, Colorado, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin, and Wyoming.

[4] Delaware, District of Columbia, Kentucky, Maryland, Missouri, Oklahoma, and West Virginia.

[5] Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

NOTE.–Data are based on surveys of all school districts enrolling 3,000 or more students and a sample of smaller districts enrolling 300 or more students. Because of computer rounding, detail may not add to totals.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics*, 1974 edition.

Table 3.17.–Participation in special education programs operated by local school [illegible]ts as a percentage[1] of public school enrollment, by category of handicap and by regi[illegible]3

Region	Total	Educable mentally retarded	Trainable mentally retarded	S[illegible] disa[illegible]ies[2]	Other
Total	4.04	1.58	.24	1.09	1.12
Northeast	3.48	1.32	.29	.79	1.08
Midwest	4.18	2.03	.23	1.17	.75
South	4.55	1.78	.24	1.17	1.35
West	3.17	1.00	.21	1.04	.93

[1] Percentages are based on unweighted data from 1,500 school districts, representing about 47 percent of the total national public school enrollment.

[2] Children with physical handicaps, including blind, deaf, speech impaired, orthopedically handicapped, and neurological disorders.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of the Assistant Secretary for Planning and Evaluation, *Analysis of 1973 Participation of Handicapped Children in Local Education Programs*, unpublished data.

Table 3.18.–Estimated numbers of persons enrolled in school since September 1974 from households in which a language other than English is usually spoken, by level of schooling and by usual household language: July 1975

(In thousands)

Non-English language usually spoken in household	Total	Nursery-kindergarten	Grades 1-8	Grades 9-12	College 1-4 years
Total non-English	2,352	188	1,424	482	189
Spanish	1,685	141	1,095	336	97
Selected European languages[1]	267	(N)	147	69	(N)
Selected Asian languages[2]	220	(N)	94	(N)	(N)

[1] French, German, Greek, Italian and Portuguese.

[2] Chinese, Filipino, Japanese, Korean.

(N) The number if less than 50,000. Estimates less than 50,000 were not reported because of their large sampling error.

NOTES.–Questions on languages were supplemented to the July 1975 Current Population Survey conducted by the Bureau of the Census. The potential target group for Bilingual Education is defined in Section 731(C)(1)(A) of the Bilingual Education Act, Title VII, ESEA, as amended by P L-93-380 and includes children and adults who were born abroad, have a native language (usual language) other than English or come from an environment where a language other than English is dominant.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Survey of Languages, 1976.*

Table 3.20.–Pupils treated primarily as children from limited- or non-English speaking environments in federally-aided programs operated by local education agencies, by control of school and by federally funded services and activities: 1972-73 regular term

Service or activity	Total	Public schools		Nonpublic schools
		Elementary	Secondary	
Total (undulicated)	**201,086**	**154,478**	**39,305**	**7,303**
Direct educative services				
Reading (English)	126,562	98,906	22,919	4,737
Other English language arts	120,178	96,556	20,130	3,492
Reading (non-English)	78,801	65,842	10,689	2,270
Other non-English language arts	72,587	59,777	10,311	2,499
Modern/classical foreign language	4,322	3,083	1,239	-0-
English as a 2nd language	105,618	88,989	12,005	4,624
Bicultural activities	110,063	87,915	18,042	4,106
Other cultural enrichment	91,069	72,841	15,384	2,844
Social sciences/social studies	72,552	58,530	11,809	2,213
Natural sciences/mathematics	81,302	62,997	15,140	3,165
Other	33,062	25,902	5,081	2,079
Special programs for the handicapped	24	16	8	-0-
Vocational skills and attitudes	20,045	8,344	11,701	-0-
Textbooks	66,678	55,857	8,554	2,267
Pupil services				
Guidance/counseling				
Vocational	17,239	9,819	7,420	-0-
Other	17,372	13,564	3,239	569
Testing	92,911	71,419	18,235	3,257
School psychological services	14,361	11,893	1,888	580
Attendance/school social work	72,253	53,470	17,785	998
Health services	92,527	72,764	19,075	688
Pupil transportation	58,043	42,471	12,989	2,583
Food services	149,689	120,504	25,845	3,340
Clothing	2,248	1,088	1,150	10
Student subsidies	2,041	861	1,180	-0-
Special services for the handicapped	100	100	-0-	-0-
Other pupil services	31,433	26,291	5,111	31
School library resources				
Audiovisual materials	148,311	116,205	29,569	2,537
Printed materials	163,916	128,362	31,716	3,838

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Consolidated Program Information Report, unpublished data.

Table 3.21.–Pupils treated primarily as children of migratory workers in federally-aided programs operated by local education agencies and other organizations,[1] by control of school, and by federally funded services and activities: 1972-73 regular school term

Service or activity	Total	Public schools			Nonpublic schools
		Prekindergarten kindergarten	Other elementary	Secondary	
Total (unduplicated)	**229,978**	**22,553**	**145,184**	**44,509**	**17,732**
Direct educative services					
Reading (English)	164,038	12,292	103,563	30,648	17,535
Other English language arts	143,689	11,972	86,187	28,297	17,233
Reading (non-English)	13,101	1,659	9,960	1,451	31
Other non-English language arts	88,611	7,177	45,315	18,966	17,153
Modern and classical foreign languages	1,136	36	224	876	---
English as a second language	102,426	9,014	56,117	20,063	17,232
Bicultural activities	107,194	8,746	59,193	21,994	17,261
Other cultural enrichment	121,594	11,089	68,691	24,506	17,308
Social sciences/social studies	108,554	9,187	58,696	23,425	17,246
Natural science/mathematics	128,708	10,552	75,052	25,802	17,302
Other subject areas	44,719	8,311	31,511	4,782	115
Vocational skills and attitudes	15,675	278	10,230	5,163	4
Special programs for the handicapped	319	30	248	41	---
Textbooks	98,524	6,649	53,345	21,276	17,254
Pupil services					
Guidance and counseling:					
Vocational	6,720	3	2,812	3,885	20
Other	18,762	1,460	12,997	4,093	212
Testing	58,593	5,920	41,820	10,739	114
School psychological services	2,009	168	1,562	276	3
Attendance/social work	148,206	13,053	85,250	32,444	17,459
Health services	142,634	14,237	82,522	28,427	17,448
Public transportation	111,660	10,324	60,003	23,902	17,431
Food service	162,290	18,820	94,510	31,529	17,431
Clothing	17,413	1,962	12,529	2,792	130
Student subsidies	---	77	915	1,234	---
Special services for the handicapped	---	13	145	32	---
Other pupil services	27,026	2,361	19,732	4,882	51
School library resource service					
Audiovisual materials	150,489	13,422	88,677	30,803	17,587
Printed materials (except textbooks)	150,240	14,242	87,234	31,478	17,286

[1] These data were collected in a survey of all local education agencies and other organizations which received Federal funds under ESEA Title I - Migrant Program in fiscal year 1973. Approximately 913 of a total 976 of these organizations responded to the questionnaire.

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Consolidated Program Information Report*, unpublished data.

Table 4.1.–College plans of high school seniors, by sex and race for those reporting: October 1972, October 1973, and October 1974

(Civilian noninstitutional population)

Sex, race, and year	Number reporting college plans (thousands)	Percent distribution				
		Total	Plan to attend college	May attend college	Plan to or may attend vocational school	Do not plan to attend any school
Total						
1972	3,242	100.0	46.2	27.1	12.0	14.6
1973	3,346	100.0	42.9	28.4	10.9	17.8
1974	3,406	100.0	43.6	26.9	10.3	19.2
Male						
1972	1,670	100.0	46.1	29.8	10.2	13.8
1973	1,710	100.0	43.5	28.6	9.6	18.3
1974	1,650	100.0	40.9	28.5	11.2	19.6
Female						
1972	1,573	100.0	46.3	24.3	13.8	15.4
1973	1,637	100.0	42.3	28.2	12.2	17.2
1974	1,755	100.0	46.2	25.4	9.6	18.8
White						
1972	2,785	100.0	46.4	26.4	12.0	15.2
1973	2,858	100.0	43.2	27.6	11.2	18.1
1974	2,927	100.0	44.6	26.2	9.7	19.6
Black						
1972	413	100.0	44.6	33.4	11.4	10.9
1973	451	100.0	38.6	34.1	10.0	17.5
1974	422	100.0	36.0	31.8	14.5	17.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 284, 1975.

Table 4.2.–Educational plans of high school seniors, by type of institution and by family income: October 1974

Family income	All high school seniors	Plan to or may attend college or vocational school					No college/ vocational school plans	Plans not reported
		Total	4-year college only	2-year then 4-year college	2-year college	vocational school		
				(PERCENTAGE DISTRIBUTION)				
Total	100.0							2.6
Under $5,000	100.0	71.3	12.4	30.3	12.7	15.9	27.1	2.5
$5,000 to 7,499	100.0	72.7	18.9	27.3	11.3	15.2	23.5	4.0
7,500 to 9,999	100.0	76.6	20.5	28.4	14.1	13.6	21.0	2.3
10,000 to 14,999	100.0	79.0	23.6	30.5	15.1	9.8	19.7	1.3
15,000 to 24,999	100.0	83.1	29.8	32.0	14.5	6.8	15.3	1.6
25,000 and over	100.0	90.4	53.5	23.9	8.9	4.1	6.9	2.7

NOTE.–Detail may not add to total because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 284, September 1975.

Table 4.3.–Participation of high school class of 1972 in postsecondary education, by race, sex, and parental income level: 1972

	Total	Percentage not in school	Percentage attending educational institutions			
			Vocational/ technical school	2-year college	4-year college	Other school
White males						
under $3,000	100.0	69.8	3.1	6.1	15.8	5.2
$3,000- $7,499	100.0	56.6	7.7	14.0	19.6	2.2
$7,500-$10,499	100.0	49.2	7.3	14.0	27.3	2.1
$10,500-$13,499	100.0	42.5	5.9	19.9	29.2	2.5
$13,500-$18,000	100.0	31.7	6.1	17.9	42.5	1.7
over $18,000	100.0	26.0	2.8	17.8	51.6	1.8
White females						
under $3,000	100.0	61.6	11.3	14.1	12.5	.4
$3,000- $7,499	100.0	55.3	10.2	13.0	19.0	2.4
$7,500-$10,499	100.0	49.2	10.0	12.9	26.3	1.6
$10,500-$13,499	100.0	44.1	10.2	13.5	30.5	1.7
$13,500-$18,000	100.0	32.3	8.1	20.4	37.8	1.4
over $18,000	100.0	22.7	3.5	15.6	56.5	1.7
Black males						
under $3,000	100.0	58.9	10.0	7.8	21.6	1.8
$3,000- $7,499	100.0	59.3	6.7	8.4	24.3	1.3
$7,500-$10,499	100.0	39.7	6.4	18.8	32.3	2.8
$10,500-$13,499	100.0	57.4	2.0	7.2	33.4	0
$13,500-$18,000	100.0	22.9	10.4	20.5	35.0	11.2
over $18,000	100.0	42.3	6.9	9.4	41.4	0
Black females						
under $3,000	100.0	58.4	9.5	5.9	23.8	2.5
$3,000- $7,499	100.0	47.3	12.7	11.6	26.1	2.3
$7,500-$10,499	100.0	50.5	7.5	8.3	32.0	1.7
$10,500-$13,499	100.0	35.3	14.4	15.2	33.1	1.9
$13,500-$18,000	100.0	30.7	8.4	12.3	48.6	0
over $18,000	100.0	15.3	21.1	2.7	60.9	0

NOTE.–See Technical Note E.

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972; unpublished data.

Table 4.4a.–Percentage of entrants into 4-year institutions of higher education, by socioeconomic status, ability level, and sex: Fall 1960

Sex and ability level	Socioeconomic status, by quartiles			
	Lower (1)	(2)	(3)	Upper (4)
Males				
Lower (1)	6	12	13	26
(2)	13	15	29	36
(3)	25	34	45	65
Upper (4)	48	70	73	87
Females				
Lower (1)	7	7	5	20
(2)	8	9	20	33
(3)	18	23	36	55
Upper (4)	34	67	67	82

SOURCE: John C. Flannigan and William W. Cooley, *Project Talent: One Year Follow-Up Studies,* Cooperative Research Project No. 2333, Pittsburg, Pa., U. of Pittsburgh, School of Education, 1966, p. 96. Used with permission.

Table 4.4b.–Percentage of entrants into 4-year institutions of higher education, by socioeconomic status, ability level and sex: Fall 1972

Sex and ability level	Socioeconomic status by quartiles		
	Lower (1)	(2) & (3)	Upper (4)
Males			
Lower (1)	7	8	17
(2) & (3)	17	23	42
Upper (4)	36	52	73
Females			
Lower (1)	8	8	20
(2) & (3)	13	22	42
Upper (4)	43	48	76

NOTE.–The middle range categories (2 & 3) were collapsed for both socioeconomic status and ability.

NOTE.–See Technical Note E.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972, unpublished data.

Table 4.5.–Changes in postsecondary participation of the high school class of 1972: October 1972 to October 1973

Status of students in 1972 and parental income level	Total	Status of students in 1973				
		Percentage not in school	Percentage attending educational institutions			
			Vocational/ technical schools	2-year colleges	4-year colleges	Other schools
Attended 4-year colleges						
Under $3,000	100.0	19.8	4.6	3.8	71.1	0
$3,000-$7,499	100.0	21.3	1.0	2.9	74.5	.4
$7,500-$10,499	100.0	14.3	1.3	2.9	81.5	0
$10,500-$13,499	100.0	17.4	3.3	2.5	76.9	0
$13,500-$18,000	100.0	14.9	1.1	2.8	81.2	0
Over $18,000	100.0	9.7	1.2	3.5	85.3	.3
Attended 2-year colleges						
Under $3,000	100.0	32.1	.6	63.4	3.9	0
$3,000-$7,499	100.0	28.6	3.2	64.6	3.5	.1
$7,500-$10,499	100.0	27.9	1.7	63.6	6.5	.3
$10,500-$13,499	100.0	26.2	2.4	64.4	7.0	0
$13,500-$18,000	100.0	29.2	1.4	63.5	5.3	.2
Over $18,000	100.0	28.7	2.2	57.1	11.6	.4
Attended vocational/technical schools						
Under $3,000	100.0	73.4	22.5	1.4	1.6	1.1
$3,000-$7,499	100.0	63.2	34.3	1.1	1.1	.2
$7,500-$10,499	100.0	52.7	40.5	3.5	2.1	1.2
$10,500-$13,499	100.0	53.8	43.8	1.7	.7	0
$13,500-$18,000	100.0	50.9	40.3	1.8	7.0	0
Over $18,000	100.0	54.8	36.1	4.5	3.5	1.0
Attended other schools						
Under $3,000	100.0	60.3	3.6	17.7	15.8	2.6
$3,000-$7,499	100.0	55.3	12.5	15.6	12.2	4.5
$7,500-$10,499	100.0	42.9	3.6	14.6	28.9	10.0
$10,500-$13,499	100.0	53.6	10.7	9.4	22.1	4.2
$13,500-$18,000	100.0	56.0	0	9.4	32.7	1.8
Over $18,000	100.0	23.0	12.1	0	51.5	13.4
Were not in school						
Under $3,000	100.0	91.1	3.5	2.4	2.9	.1
$3,000-$7,499	100.0	90.6	3.8	3.7	1.8	.2
$7,500-$10,499	100.0	88.7	3.9	3.5	3.7	.2
$10,500-13,499	100.0	86.8	3.3	5.0	4.5	.5
$13,500-$18,000	100.0	82.9	5.4	7.5	4.1	.1
Over $18,000	100.0	78.8	4.9	7.8	7.9	.5

NOTE.–See Technical Note E.

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972, unpublished data.

Table 4.7.–Admission requirements established by noncollegiate postsecondary schools with occupational programs, by type of school, 1973-74

Type of school	High school diploma or GED required	Minimum age required	Entrance examination required
Total	48.2	73.9	52.6
Vocational-technical	53.1	72.8	67.7
Technical institute	76.7	50.6	71.2
Business/office	72.0	45.6	65.9
Cosmetology/barber	39.6	93.9	43.4
Flight	4.5	76.3	24.2
Trade	25.1	76.0	54.3
Home study	49.9	54.6	43.2
Hospital	97.3	63.4	71.4

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, *Survey of Programs and Enrollments in Noncollegiate Postsecondary Schools with Occupational Programs*, 1973-74.

Table 4.8.–Enrollment in public postsecondary area vocational schools, by student ethnic group and sex: 1974

Ethnic group	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	567,476	100.0	341,755	100.0	225,721	100.0
American Indian	5,761	1.0	3,376	1.0	2,385	1.1
Black	63,830	11.2	34,664	10.1	29,166	12.9
Asian American	6,351	1.1	3,666	1.1	2,685	1.2
Spanish origin	23,359	4.1	15,003	4.3	8,356	3.7
Other	456,767	80.5	277,959	81.3	178,808	79.2
Unclassified	11,408	2.0	7,087	2.1	4,321	1.9

SOURCE: U.S. Department of Health, Education and Welfare, Office of Civil Rights, *Survey of Public Postsecondary Area Vocational Schools, 1974*, unpublished data..

Table 4.9.–Total enrollment and percent female participation in occupational programs with 10,000 students or more in public postsecondary area vocational schools: 1974

Program	Total enrolled	Percent female
Stenography	40,778	93.7
Nursing (all types)	47,939	91.7
Filing	10,345	86.5
Home economics (all types)	24,947	86.4
Accounting and bookkeeping	27,080	45.0
Data processing	22,424	38.1
Miscellaneous technology	10,812	36.9
Business office supervisory	22,751	21.3
Agriculture (all types)	17,830	15.5
Law enforcement training	12,529	14.8
Police science technology	19,429	13.9
Drafting	12,811	7.6
Electronic technology	18,380	2.0
Auto mechanics (all types)	28,500	1.3
Welding	13,233	1.3
Construction trades	11,757	.9

NOTE.–These 16 programs represent 60 percent of total enrollment in all programs.

SOURCE: U.S. Department of Health, Education and Welfare, *Survey of Public Postsecondary Area Vocational Schools 1974*, unpublished data.

Table 4.10.–The 15 most popular programs offered by noncollegiate postsecondary schools with occupational programs: 1973-74

Program	Number of students enrolled during year (In thousands)	Number of schools offering program
Cosmetology	182.8	2,350
Auto mechanic	165.1	902
Secretary	123.3	1,246
Nursing (all types)	114.8	1,346
Real estate	105.5	216
Accounting/bookkeeping	83.4	852
Air conditioning repair	83.4	312
Metalworking	78.2	565
Electronics repair	77.7	450
Data processing	71.7	698
Commercial pilot	51.7	1,438
General office clerical	49.3	748
Commercial art	49.3	185
Construction trades	43.5	577
Electronic technology	43.2	212

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, *Survey of Programs and Enrollments in Noncollegiate Postsecondary Schools with Occupational Programs, 1973-74*.

Table 4.11.– Average (mean) tuition and other costs for occupational programs in noncollegiate postsecondary schools, by type and control of school: 1973-74

Type of school	Total charges[1,2]		Tuition and fees		Books, supplies and other costs	
	Public	Private	Public	Private	Public	Private
Average	**$299**	**$1,387**	**$220**	**$1,309**	**$ 79**	**$ 91**
Vocational/technical	268	1,476	193	1,364	74	113
Technical institute	456	2,197	314	2,075	141	122
Business/office	(3)	1,361	(3)	1,249	(3)	112
Cosmetology/barber	(3)	463	(3)	418	(3)	44
Flight	(3)	2,590	(3)	2,518	(3)	72
Trade	517	940	483	865	33	74
Home study	(3)	570	(3)	–	(3)	–
Hospital	444	1,100	315	917	128	183

[1] Includes costs for the duration of a course of study in each type of school.
[2] Details may not add to totals because some schools reported total charges only.
[3] Number of schools in cell is too small to compute average.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Survey of Programs and Enrollment in Noncollegiate Postsecondary Schools with Occupational Programs, 1973*, 1975.

Table 4.12.–Enrollment in institutions of higher education, by degree-credit status and type: 1960 to 1983

(In thousands)

Year (fall)	Total enroll-ment	Degree credit			Non-degree credit		
		Total	2-year insti-tutions	4-year insti-tutions	Total	2-year insti-tutions	4-year insti-tutions
1960	3,789	3,583	451	3,131	206	166	40
1961	4,047	3,861	518	3,343	186	148	38
1962	4,404	4,175	590	3,585	229	184	45
1963	4,766	4,495	625	3,870	271	220	52
1964	5,280	4,950	711	4,239	330	278	52
1965	5,921	5,526	841	4,685	395	332	63
1966	6,390	5,928	945	4,984	462	381	80
1967	6,912	6,406	1,081	5,325	505	432	73
1968	7,513	6,928	1,289	5,639	585	503	82
1969	8,005	7,484	1,528	5,956	521	448	72
1970	8,581	7,920	1,630	6,290	661	593	68
1971	8,949	8,116	1,725	6,391	833	761	72
1972	9,215	8,265	1,792	6,473	950	874	76
1973	9,602	8,520	1,921	6,598	1,082	1,000	83
1974	10,223	9,023	2,198	6,825	1,200	1,113	87
PROJECTED							
1975	10,619	9,328	2,335	6,993	1,291	1,201	90
1976	10,964	9,585	2,457	7,128	1,379	1,282	97
1977	11,266	9,805	2,561	7,244	1,461	1,358	103
1978	11,518	9,978	2,664	7,314	1,540	1,431	109
1979	11,702	10,091	2,747	7,344	1,611	1,498	113
1980	11,847	10,173	2,819	7,354	1,674	1,556	118
1981	11,926	10,203	2,874	7,329	1,723	1,602	121
1982	11,957	10,188	2,906	7,282	1,769	1,645	124
1983	11,822	10,030	2,902	7,128	1,792	1,666	126

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1979-80*, and *Projections of Education Statistics to 1984-85.*

Table 4.13.–College entrance ratios, by sex: Selected years, 1958-59 to 1974-75

School year	High school graduates (in thousands)			School year	First-time degree-credit					
					Number (in thousands)			Percent of graduates		
	Total	Males	Females		Total	Males	Females	Total	Males	Females
1957-58	1,506	726	780	1958-59	772	464	308	51.3	63.9	39.5
1962-63	1,957	959	991	1963-64	1,046	604	442	53.6	63.0	44.6
1964-65	2,665	1,314	1,351	1965-66	1,442	829	613	54.1	63.1	45.4
1967-68	2,702	1,341	1,360	1968-69	1,630	925	705	60.3	69.0	51.8
1970-71	2,943	1,456	1,487	1971-72	1,766	968	798	60.0	66.5	53.7
1973-74	3,069	1,512	1,557	1974-75[1]	1,854	973	882	60.4	64.4	56.6

[1] Estimated.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics, 1974;* and *Projections of Educational Statistics, 1974* edition.

Table 4.14.–Age distribution of college students, by sex: October 1947 to October 1974

(Numbers in thousands. Civilian noninstitutional population)

Sex and age	1947	1955	1960	1965	1970	1972	1974[1]
Both sexes	2,311[1]	2,379	3,570	5,675	7,413	8,313	9,847
14 to 17 years old	188	147	222	264	260	295	304
18 and 19 years old	520	745	1,299	2,215	2,594	2,680	2,597
20 and 21 years old	1,088	931	790	1,326	1,857	2,116	2,192
22 to 24 years old			509	940	1,354	1,461	1,527
25 to 29 years old	321	406	491	614	939	1,229	1,482
30 to 34 years old	94	150	259	316	410	531	720
35 years and over	NA	NA	NA	NA	NA	NA	1,025
Male	1,687	1,579	2,339	3,503	4,401	4,853	5,400
14 to 17 years old	87	57	99	113	130	141	142
18 and 19 years old	343	432	734	1,218	1,346	1,366	1,262
20 and 21 years old	872	647	503	804	1,083	1,170	1,206
22 to 24 years old			411	699	902	998	943
25 to 29 years old	301	337	399	458	684	848	951
30 to 34 years old	84	107	193	211	256	330	420
35 years and over	NA	NA	NA	NA	NA	NA	476
Female	624	800	1,231	2,172	3,013	3,459	4,448
14 to 17 years old	101	90	123	151	130	153	162
18 and 19 years old	277	313	565	997	1,248	1,314	1,335
20 and 21 years old	216	285	287	522	774	946	986
22 to 24 years old			98	241	452	464	584
25 to 29 years old	20	69	92	156	255	381	531
30 to 34 years old	10	42	66	105	154	200	300
35 years and over	NA	NA	NA	NA	NA	NA	548
PERCENTAGE DISTRIBUTION							
Both sexes	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 17 years old	8.1	6.2	6.2	4.7	3.5	3.5	3.1
18 and 19 years old	26.8	31.3	36.4	39.0	35.0	32.2	26.4
20 and 21 years old	47.1	39.1	22.1	23.4	25.1	25.5	22.3
22 to 24 years old			14.3	16.6	18.3	17.6	15.5
25 to 29 years old	13.9	17.1	13.8	10.8	12.7	14.8	15.1
30 to 34 years old	4.1	6.3	7.3	5.6	5.5	6.4	7.3
35 years and over	NA	NA	NA	NA	NA	NA	10.4
Male	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 17 years old	5.2	3.6	4.2	3.2	3.0	2.9	2.6
18 and 19 years old	20.3	27.4	31.4	34.8	30.6	28.1	23.4
20 and 21 years old	51.7	41.0	21.5	23.0	24.6	24.1	22.3
22 to 24 years old			17.6	20.0	20.5	20.6	17.5
25 to 29 years old	17.8	21.3	17.1	13.1	15.5	17.5	17.6
30 to 34 years old	5.0	6.8	8.3	6.0	5.8	6.8	5.6
35 years and over	NA	NA	NA	NA	NA	NA	10.1
Female	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 17 years old	16.2	11.3	10.0	7.0	4.3	4.4	3.6
18 and 19 years old	44.4	39.1	45.9	45.9	41.4	38.0	30.0
20 and 21 years old	34.6	35.6	23.3	24.0	25.7	27.3	22.2
22 to 24 years old			8.0	11.1	15.0	13.4	13.1
25 to 29 years old	3.2	8.6	7.5	7.2	8.5	11.0	11.9
30 to 34 years old	1.6	5.4	5.4	4.8	5.1	5.8	6.7
35 years and over	NA	NA	NA	NA	NA	NA	12.3

NA – Not available.

[1] Youngest age group is 16 and 17 years.

SOURCES: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 272, Nov. 1974 and Series P-20, No. 278, Feb. 1975.

Table 4.15.–Undergraduate college enrollment of persons 14 to 34 years old, by type of college, age, and sex, October 1974

[Numbers in thousands. Civilian noninstitutional population]

Type of college and sex	Total enrolled	14 to 19 years old	20 and 21 years old	22 to 24 years old	25 to 34 years old	Percent distribution				
						Total enrolled	14 to 19 years old	20 and 21 years old	22 to 24 years old	25 to 34 years old
All colleges										
Total	7,338	2,906	2,131	1,028	1,272	100.0	39.6	29.0	14.0	17.3
Male	4,030	1,407	1,171	647	805	100.0	34.9	29.1	16.1	20.0
Female	3,307	1,500	960	382	467	100.0	45.4	29.0	11.6	14.1
2-year colleges										
Total	2,072	834	369	305	565	100.0	40.3	17.8	14.7	27.3
Male	1,172	403	233	192	345	100.0	34.4	19.9	16.4	29.4
Female	899	431	136	113	220	100.0	47.9	15.1	12.6	24.5
4-year colleges										
Total	4,956	1,908	1,699	705	644	100.0	38.5	34.3	14.2	13.0
Male	2,696	918	909	443	425	100.0	34.1	33.7	16.4	15.8
Female	2,260	990	790	263	218	100.0	43.8	35.0	11.6	9.6
Type of college not reported										
Total	310	164	63	18	63	100.0	52.9	20.3	5.8	20.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, *School Enrollment-Social and Economic Characteristics of Students: October, 1974*, Series P-20, No. 286, November, 1975.

Table 4.16.–Undergraduate full-time students in institutions of higher education, by ethnic group and by geographic region: 1968, 1970, and 1972

Geographic region	Total	American Indian	Black	Oriental	Spanish	Other
			Year 1968			
Total	2,937,166	14,367	209,205	21,539	49,205	2,642,850
Percent distribution by ethnic group	100.0	0.5	7.1	0.7	1.7	90.0
Region I	205,485	342	4,067	1,417	921	198,738
Region II	171,253	476	4,891	943	2,102	162,841
Region III	328,206	675	31,481	1,021	1,075	293,954
Region IV	484,872	1,184	78,359	1,017	6,138	398,174
Region V	631,804	2,388	27,635	3,034	2,500	596,247
Region VI	340,187	4,401	37,026	1,298	16,400	281,062
Region VII	242,598	1,016	6,927	1,181	1,226	232,248
Region VIII	124,358	1,345	1,057	945	2,510	118,501
Region IX	252,604	1,578	15,405	8,151	15,777	212,293
Region X	155,799	962	2,357	2,532	1,156	148,792
			Year 1970			
Total	4,850,403	25,252	330,687	49,726	98,453	4,346,285
Percent distribution by ethnic group	100.0	0.5	6.8	1.0	2.1	89.6
Region I	307,759	416	8,590	1,566	1,739	295,448
Region II	513,857	1,329	31,431	4,843	10,424	465,830
Region III	431,213	1,020	41,000	1,898	1,672	385,623
Region IV	695,944	1,448	98,938	1,694	6,010	587,854
Region V	1,103,811	3,697	56,160	5,204	5,335	1,033,415
Region VI	500,115	6,344	48,069	2,332	28,702	414,668
Region VII	307,913	868	10,540	1,100	1,914	293,491
Region VIII	183,387	2,092	2,051	1,371	4,524	173,349
Region IX	601,222	6,694	30,328	25,841	36,683	501,676
Region X	205,182	1,344	3,580	3,877	1,450	194,931
			Year 1972			
Total	5,543,204	32,234	464,734	57,577	130,840	4,857,819
Percent distribution by ethnic group	100.0	0.6	8.4	1.0	2.4	87.6
Region I	366,768	725	13,180	2,155	3,257	347,431
Region II	598,833	1,655	52,997	6,426	18,986	518,769
Region III	596,196	1,280	59,211	2,350	2,976	530,379
Region IV	771,427	1,986	120,351	2,241	5,647	641,202
Region V	1,190,547	4,309	88,213	5,767	8,670	1,083,588
Region VI	575,792	7,408	67,882	2,591	34,508	463,403
Region VII	353,813	2,149	14,034	1,147	1,945	334,538
Region VIII	199,160	2,911	2,510	1,439	5,359	186,941
Region IX	677,483	7,616	41,117	28,915	47,125	552,710
Region X	213,185	2,195	5,239	4,546	2,367	198,838

SOURCE: U.S. Department of Health, Education, and Welfare, Office for Civil Rights, *Racial and Ethnic Enrollment Data from Institutions of Higher Education, Fall 1972.*

Table 4.17.– College enrollment of the 1971 freshman class: October 1971 to October 1974

Race and sex	Number enrolled[1] (students 16 to 34 years old)				Percent of first-year students in 1971			
	Freshman (1971)	Sophomore (1972)	Junior (1973)	Senior (1974)	Freshman (1971)	Sophomore (1972)	Junior (1973)	Senior (1974)
Total	**2,438**	**1,965**	**1,476**	**1,360**	**100.0**	**80.6**	**60.5**	**55.8**
Male	1,331	1,152	851	811	100.0	86.6	63.9	60.9
Female	1,107	813	625	549	100.0	73.4	56.5	49.6
White	2,166	1,760	1,306	1,238	100.0	81.3	60.3	57.2
Male	1,194	1,041	764	732	100.0	87.2	64.0	61.3
Female	971	719	541	506	100.0	74.0	55.7	52.1
Black	232	178	142	95	100.0	76.7	61.2	40.9
Male	114	95	73	54	100.0	83.3	64.0	47.4
Female	118	83	69	41	100.0	70.3	58.5	34.7

[1] In thousands.

NOTE.–This is an approximation of retention rates based on annual data on total number of persons in each college class.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, *School Enrollment–Social and Economic Characteristics of Students: October 1974*, Series P-20, No. 286, November 1975.

Table 4.18.–Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: 1964-65 to 1974-75

(Charges are for the academic year and in current unadjusted dollars)

Year and control	Total tuition, board, and room				Tuition and required fees			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
1964-65								
Public	$ 950	$1,051	$ 867	$ 638	$ 243	$ 98	$ 224	$ 99
Nonpublic	1,907	2,202	1,810	1,455	1,088	1,297	1,023	702
1965-66:[1]								
Public	983	1,105	902	670	257	327	240	109
Nonpublic	2,005	2,316	1,897	1,557	1,154	1,369	1,086	768
1966-67:								
Public	1,026	1,171	947	710	275	360	259	121
Nonpublic	2,124	2,456	2,007	1,679	1,233	1,456	1,162	845
1967-68:[1]								
Public	1,064	1,199	997	788	283	366	268	143
Nonpublic	2,204	2,545	2,104	1,763	1,297	1,534	1,237	893
1968-69:								
Public	1,117	1,245	1,063	883	295	377	281	170
Nonpublic	2,321	2,673	2,237	1,876	1,383	1,638	1,335	996
1969-70:[1]								
Public	1,205	1,362	1,137	952	324	427	307	179
Nonpublic	2,533	2,919	2,420	1,993	1,534	1,809	1,469	1,034
1970-71:[1]								
Public	1,288	1,478	1,209	1,017	352	478	333	186
Nonpublic	2,740	3,163	2,598	2,104	1,685	1,981	1,603	1,110
1971-72:								
Public	1,357	1,579	1,263	1,073	376	526	354	192
Nonpublic	2,917	3,375	2,748	2,186	1,820	2,135	1,721	1,172
1972-73:[1]								
Public	1,406	1,598	1,341	1,128	400	536	392	213
Nonpublic	2,437	3,460	2,820	2,248	1,869	2,199	1,775	1,213
1973-74:								
Public	1,524	1,691	1,492	1,242	[2]445	571	453	[2]246
Nonpublic	3,184	3,715	3,030	2,422	2,009	2,373	1,917	1,315
1974-75:[1]								
Public	1,708	1,903	1,682	1,420	503	653	515	285
Nonpublic	3,592	4,193	3,419	2,724	2,290	2,701	2,188	1,496

[1] Data for 1965-66, 1967-68, 1969-70, 1972-73, and 1974-75 estimated by applying the Consumer Price Index to constant dollar estimates. See constant-dollar index, appendix B, table B.9, in source.

[2] Estimated.

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics* to 1984-85, 1975 edition.

Table 4.19.– Estimated parental income of first-time students in institutions of higher education, by type of institution: Selected years, 1966 to 1974

Type of institution and parental income	Percentage distribution							
	1966	1968	1969	1970	1971	1972	1973	1974
All institutions								
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $4,000	6.6	6.3	5.5	5.9	5.3	8.0	6.5	6.0
$4,000- $9,999	47.1	42.7	39.0	31.7	29.1	24.7	19.6	18.3
$10,000-$14,999	25.2	27.2	28.7	31.0	32.3	30.3	29.6	29.0
$15,000-$19,999	9.4	11.2	12.5	13.2	14.3	14.8	16.8	16.6
$20,000-$24,999	4.6	5.3	6.2	7.3	8.1	8.9	10.9	12.0
$25,000 or more	7.1	7.3	8.0	10.9	10.9	13.4	17.5	18.2
All universities								
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $4,000	4.6	4.0	3.5	2.6	2.9	3.4	2.7	3.2
$4,000- $9,999	43.3	35.5	31.4	22.6	21.8	17.6	12.9	13.1
$10,000-$14,999	26.7	29.3	29.6	31.6	32.0	29.5	26.5	26.6
$15,000-$19,999	10.7	13.5	15.3	16.2	16.8	17.0	18.5	17.8
$20,000-$24,999	5.6	7.2	8.2	10.3	10.8	12.2	14.1	14.2
$25,000 or more	9.2	10.5	12.0	16.6	15.7	20.3	25.3	25.1
All 4-year colleges								
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $4,000	7.2	7.1	5.6	5.0	5.1	7.0	6.0	5.9
$4,000- $9,999	47.0	41.8	38.0	30.8	28.0	23.5	18.4	17.8
$10,000-$14,999	24.5	26.9	29.0	32.1	31.1	29.4	28.4	27.3
$15,000-$19,999	9.3	11.4	12.8	13.7	14.6	15.7	17.3	16.7
$20,000-$24,999	4.7	5.3	6.2	7.7	8.5	9.5	11.7	12.2
$25,000 or more	7.3	7.6	8.4	10.7	12.6	14.9	18.2	20.1
All 2-year colleges								
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $4,000	7.8	7.4	7.0	9.2	7.0	11.6	9.3	7.8
$4,000- $9,999	52.0	51.1	46.2	39.3	34.3	30.2	24.7	21.7
$10,000-$14,999	24.6	25.5	27.7	29.5	33.5	31.5	32.6	32.0
$15,000-$19,999	8.2	8.9	10.1	10.4	12.5	12.6	15.5	15.7
$20,000-$24,999	3.3	3.4	4.6	4.6	6.1	6.3	8.4	10.4
$25,000 or more	4.2	3.7	4.5	7.0	6.5	7.9	9.7	12.4

SOURCE: American Council on Education, *The American Freshman: National Norms*, editions for 1966, 1968, 1969, 1970, 1971, 1972, 1973, and 1974. Used with permission.

Table 4.21.–Enrollment in institutions of higher education, by family income: 1972

Race, sex, and family income level	Total	Enrolled in 2-year colleges		Enrolled in 4-year colleges	
		Public	Private	Public	Private
White males					
under $3,000	100.0	33.1	0.0	63.7	3.2
$3,000-$7,499	100.0	38.4	.9	47.3	13.5
$7,500-$10,499	100.0	28.6	1.7	52.3	17.5
$10,500-$13,499	100.0	34.6	2.6	48.8	14.0
$13,500-$18,000	100.0	21.9	4.0	54.3	19.8
over $18,000	100.0	18.5	1.9	49.6	30.0
White females					
under $3,000	100.0	43.4	0.0	42.0	14.6
$3,000-$7,499	100.0	33.9	5.3	46.3	14.5
$7,500-$10,499	100.0	25.0	2.9	53.1	19.1
$10,500-$13,499	100.0	25.0	2.6	47.1	25.4
$13,500-$18,000	100.0	28.5	2.9	51.0	17.5
over $18,000	100.0	14.8	3.8	50.9	30.5
Black males					
under $3,000	100.0	10.3	0.0	63.4	26.3
$3,000-$7,499	100.0	27.3	4.2	54.0	14.6
$7,500-$10,499	100.0	34.6	.0	50.0	15.3
$10,500-$13,499	100.0	7.6	.0	73.3	19.1
$13,500-$18,000	100.0	31.3	.0	56.4	12.3
over $18,000	100.0	21.0	.0	47.4	31.6
Black females					
under $3,000	100.0	17.9	1.5	61.3	17.3
$3,000-$7,499	100.0	29.3	.9	57.8	12.1
$7,500-$10,499	100.0	9.9	.0	56.6	33.5
$10,500-$13,499	100.0	33.7	4.0	40.0	22.3
$13,500-$18,000	100.0	17.9	.0	64.5	17.6
over $18,000	100.0	4.4	.0	53.8	41.8

NOTE.–See Technical Note E.

SOURCE: Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972; unpublished data.

Table 4.22.–Distance from home to college for first-time students in institutions of higher education, by type of institution: 1969 to 1973

Type of institution and distance, in miles	Percentage distribution				
	1969	1970	1971	1972	1973
All institutions					
Total	100.0	100.0	100.0	100.0	100.0
10 or less	26.5	27.2	23.2	26.4	28.2
11-50	24.4	24.9	26.8	24.9	24.8
51-100	13.1	12.7	14.6	13.8	12.8
101-500	26.3	26.6	27.7	26.0	25.9
More than 500	9.6	8.6	7.7	8.8	8.3
All 2-year colleges					
Total	100.0	100.0	100.0	100.0	100.0
10 or less	47.0	48.7	36.4	42.8	48.5
11-50	30.8	33.1	36.4	31.9	33.0
51-100	8.2	6.6	12.0	10.1	6.8
101-500	10.8	9.1	13.3	11.7	8.7
More than 500	3.2	2.6	2.1	3.5	3.0
All 4-year colleges					
Total	100.0	100.0	100.0	100.0	100.0
10 or less	16.3	15.1	13.5	17.1	15.8
11-50	25.0	22.1	21.1	23.5	19.9
51-100	15.2	15.6	16.7	15.2	15.9
100-500	29.7	34.6	35.2	31.5	35.6
More than 500	13.8	12.7	13.5	12.7	12.8
All universities					
Total	100.0	100.0	100.0	100.0	100.0
10 or less	14.1	16.2	16.3	14.0	11.8
11-50	15.7	18.1	19.7	15.6	18.2
51-100	16.6	16.5	15.8	17.9	18.4
101-500	41.4	38.6	40.2	41.2	40.9
More than 500	12.2	10.6	8.1	11.4	10.6

NOTE.–Detail may not add to totals because of rounding.

SOURCE: American Council on Education, Office of Research, *Weighted National Norms for All Freshmen*, 1969, 1970, 1971, 1972, and 1973 editions. Used with permission.

Table 4.23.–Reason for taking adult education, as reported by participants: Year ending May 1972

Reason cited	Number			Percent		
	Total	Males	Females	Total	Males	Females
Total participants				100.0	100.0	100.0
For general information	2,517,000	1,238,080	1,271,006	16.0	16.0	15.9
To improve or advance in job	6,718,000	4,179,000	2,534,000	42.7	54.0	31.7
To get new job	1,778,000	851,000	927,000	11.3	11.0	11.6
For community activity	425,000	178,000	240,000	2.7	2.3	3.0
For personal or family interests	3,697,000	1,068,000	2,622,000	23.5	13.8	32.8
For social or recreational reasons	1,023,000	294,000	728,000	6.5	3.8	9.1
Other	1,243,000	665,000	576,000	7.9	8.6	7.2
Not reported	94,000	54,000	40,000	0.6	0.7	0.5

NOTE.–Totals add to more than participants, as more than one course was taken by some.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 4.24.–Utilization of adult education by race and sex, by level of educational attainment: Year ending May 1972

Characteristics of participants	Total	Non-high school graduate	High school graduate	Some college	College graduate or more
MALE					
White					
Eligible persons (in thousands)	52,269	19,893	17,872	6,573	7,872
Participants (% of eligibles) .	13.9	4.4	13.9	24.7	29.0
Black					
Eligible persons (in thousands)	5,470	3,385	1,414	408	265
Participants (% of eligibles) . .	6.4	2.4	9.3	17.2	26.8
FEMALE					
White					
Eligible persons (in thousands)	61,253	22,625	25,906	7,050	5,669
Participants (% of eligibles) . .	11.8	3.7	6.0	21.8	32.7
Black					
Eligible persons (in thousands)	6,959	4,002	2,129	542	316
Participants (% of eligibles) . .	9.5	5.2	11.3	19.6	32.6

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 4.25.–Enrollment in adult education by course of study or activity: Year ending May 1972

Type of course or activity	Number of participants[1]	Percent of all participants in this course or activity[1]
General education	3,902,032	24.8
English	1,132,000	7.2
Foreign languages	424,000	2.7
Social studies	1,699,000	10.8
Sciences	1,180,000	7.5
Other	881,000	5.6
Occupational training	9,015,000	57.3
Health occupations	613,000	3.9
Office occupations	912,000	5.8
Technical occupations	519,000	3.3
Trades and industry occupations	2,139,000	13.6
Managerial and proprietary	2,784,000	17.7
Professional	1,809,000	11.5
Other	881,000	5.6
Community issues	1,809,000	11.5
Civic and public affairs	456,000	2.9
Religion	802,000	5.1
Safety and survival	566,000	3.6
Other	31,000	.2
Personal and family living	1,840,000	11.7
Home and family living	1,195,000	7.6
Personal development	676,000	4.3
Other	16,000	.1
Social and recreational lessons	1,888,000	12.0
Hobbies and handicrafts	1,258,000	8.0
Group recreation lessons	173,000	1.1
Sports lessons	503,000	3.2
Other	16,000	1.0
Miscellaneous	16,000	1.0

[1] Totals for both numbers and percentages add up to more than 100 percent as persons may be counted under several activities.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 4.26.–Sponsors of courses taken by particpants in adult education: Years ending May 1969 and 1972

Sponsor of adult education activity	Number of adult education participants	
	1969	1972
Public grade or high school	1,970,000	2,200,000
Two-year college or technical institute	1,550,000	2,561,000
Four-year college or university	2,831,000	3,367,000
Private vocational, trade, or business school	1,504,000	1,393,000
Employer	2,274,000	2,613,000
Community organization	1,554,000	1,996,000
Hospital	40,000	64,000
Labor union or professional organization	[1] 2,512,000	871,000
Tutor or private instructor		944,000
Other		1,481,000
Not reported	54,000	98,000

[1] Labor union or professional organization and tutor or private instructor included in other category in 1969.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 4.27.–Participants in adult education, by family income level: Year ending May 1972

Total annual family income	Total number of respondents	Number reporting[1] adult education	Participation rate (percent)
Less than $4,000	20,762,000	1,133,000	5.5
$4,000-$5,999	12,125,626	1,196,000	9.9
$6,000-$9,999	29,689,000	3,257,000	11.0
$10,000-$14,999	30,897,000	4,799,000	15.5
$15,000-$24,999	18,564,000	3,619,000	19.5
$25,000 and more	5,737,000	1,164,000	20.3
No information	9,489,000	566,400	NA

NOTE.–Both total number of respondents and number reporting adult education columns exclude full-time students.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Participation in Adult Education, 1972.*

Table 5.1.– Achievement in specific knowledge of occupations for all persons 17 years old, persons 17 years old and out of school, and Adults, by selected characteristics of participants: 1973-74

Selected characteristics	Mean percentage correct responses		
	All 17 year olds	All 17 year olds out of school	Adults
National total	**74.8**	**64.3**	**84.3**
Region:			
Northeast	76.5	64.4	85.6
Southeast	69.8	56.7	79.3
Central	76.6	68.4	86.2
West	74.7	69.9	85.4
Sex:			
Males	75.6	65.0	85.8
Females	74.1	63.8	82.8
Race:			
White	77.0	68.1	86.2
Black	61.8	50.0	71.8
Others	68.3	59.0	73.9
Parental education:			
No high school	66.3	55.3	78.8
Some high school	69.2	61.2	81.5
Graduate high school	74.6	67.0	87.0
Post high school	78.9	75.2	89.7
Unknown	60.4	58.8	70.5
Size and type of community:			
Low metro	69.2	60.2	77.5
High metro	79.0	70.0	90.5
Main big city	76.2	70.2	84.5
Urban fringe	77.1	70.8	87.5
Medium city	75.6	64.4	82.7
Small places	74.5	63.7	84.0
Extreme rural	72.7	62.1	80.7

NOTE.–See Technical Note D.

SOURCE: National Assessment of Educational Progress, Education Commission of the States, Denver, Colorado, unpublished data.

Table 5.2.–Occupational objectives[1] of high school seniors, 2½ years after graduation, by occupation and sex, high school class of 1972: October 1974

Type of work	Percent of respondents[2]	
	Male	Female
Total	100.0[3]	100.0[3]
Clerical	2.0	18.7
Craftsman	15.9	.9
Homemaker or housewife only	.2	24.9
Laborer	4.7	.4
Manager, proprietor, or administrator	19.4	4.9
Military	2.2	.3
Operative	5.5	1.5
Professional and technical workers	43.3	41.1
Sales workers	1.7	1.5
Service workers	4.6	3.6
Not working	.7	2.4

[1] The type of work they expect to be doing at age 30.
[2] Nonresponse for males and females was 10.5% and 7.3% respectively.
[3] Details do not add to 100.0 due to rounding; percents based on unweighted data.

NOTE.–See Technical Note E.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972, unpublished data.

Table 5.3.–Percentage of employed youths answering "Applies to me" to statements regarding satisfaction with training 1½ years after graduation, by high school program of study and by sex, high school class of 1972: Fall 1973

Statement	Sex	All programs	Academic	General	Voc/tech
A. Statements expressing satisfaction with training					
Consider myself doing as well as others with similar training	All persons	85	83	81	87
	Male	82	82	77	86
	Female	86	83	84	88
Been able to apply basic principles of training, although some things are different	All persons	85	83	84	86
	Male	85	86	86	83
	Female	85	82	83	88
Consider training wise choice	All persons	84	81	80	87
	Male	82	80	78	86
	Female	85	81	82	88
Been able to apply almost everything learned in high school training	All persons	71	70	67	74
	Male	66	69	61	68
	Female	73	71	70	76
Found high school training useful in on-the-job training program(s)	All persons	59	54	57	63
	Male	59	54	60	61
	Female	59	54	55	63
B. Statement expressing dissatisfaction with training					
Took course work associated with training which was not helpful in performing job	All persons	18	18	19	18
	Male	23	21	24	23
	Female	16	17	16	16
Was trained with tools or equipment that are not used on job	All persons	19	13	20	21
	Male	25	17	29	27
	Female	16	11	14	19
Would have liked other types of experience or information included in training	All persons	23	20	24	23
	Male	33	28	32	35
	Female	18	17	19	19
Received training different from way it is done on job	All persons	31	28	33	31
	Male	39	32	44	38
	Female	27	26	26	29
Could have gotten job without training	All persons	32	34	37	29
	Male	46	44	46	47
	Female	26	30	31	22
Would have liked more information about what was expected in job beyond skill training	All persons	32	31	31	32
	Male	29	30	29	29
	Female	29	30	29	29
Would have liked more experience in training before started working	All persons	40	45	43	37
	Male	49	51	49	47
	Female	36	42	39	33

NOTE.–See Technical Note E.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972, Management Bulletin No. 22, August 29, 1975.

Table 5.4.–Utilization of specialized training for employment by high school class of 1972, 1½ years after graduation, by sex and race: Fall 1973

Sex and race	Total	Never had specialized training[1] for employment in high school	Had specialized training for employment while in high school		
			Have not had a job using such training since high school		Have had a job using such training since high school
			Did not seek such a job	Did seek such a job	
Males					
Black	100.0	76.6	10.0	5.2	8.2
White	100.0	83.6	4.9	2.1	9.3
Females					
Black	100.0	59.9	7.9	9.3	22.9
White	100.0	65.7	6.7	5.2	22.4

[1] Examples of specialized training are auto mechanics, secretarial skills, or nurses aid.

NOTE.–See Technical Note E.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972; unpublished data.

Table 5.5.–Educational attainment of the labor force 18 to 64 years of age, by sex and years of school completed: 1952 to 1974

Year and sex	Percentage distribution by years of school completed						Median school years completed
	Total	Elementary	High school		College		
		8 years or less	1 to 3 years	4 years	1 to 3 years	4 years or more	
Both sexes							
October 1952	100.0	36.4	19.1	27.8	8.5	8.1	11.1
March 1962	100.0	25.5	19.6	33.0	10.7	11.1	12.1
March 1966	100.0	20.9	19.2	37.1	10.9	11.8	12.3
March 1970	100.0	16.2	17.4	39.9	13.6	12.9	12.4
March 1974	100.0	12.0	15.3	41.3	15.8	15.6	12.6
Males							
October 1952	100.0	39.3	19.4	24.6	8.3	8.3	10.6
March 1962	100.0	28.1	20.0	29.6	10.5	11.9	12.1
March 1966	100.0	23.3	19.6	33.3	10.8	12.9	12.2
March 1970	100.0	18.4	17.6	36.0	13.8	14.2	12.4
March 1974	100.0	13.8	15.6	37.8	15.7	17.0	12.5
Females							
October 1952	100.0	30.2	18.4	34.7	9.0	7.7	12.0
March 1962	100.0	20.6	18.8	39.7	11.2	9.7	12.3
March 1966	100.0	16.7	18.5	43.9	11.0	9.9	12.3
March 1970	100.0	12.7	17.0	46.3	13.3	10.7	12.4
March 1974	100.0	9.2	14.8	46.6	16.0	13.5	12.6

[1] Data for 1952-59 include only persons reporting educational attainment.
[2] Includes persons reporting no school years completed.

NOTE.–Beginning in 1962, data include Alaska and Hawaii. Because of rounding, sums of individual items may not equal total.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report No. 175*, 1975.

Table 5.6.–Employment in major occupational groups for a probability sample of males, 22-23 years of age, by educational attainment: Spring 1974

Educational attainment	Number	Total	Percentage distribution		Farm
			White collar	Blue collar[1]	
Total	**906**	**100.0**	**39.1**	**58.5**	**2.4**
Dropouts	77	100.0	15.6	83.1	1.3
High school graduates	419	100.0	23.9	73.3	2.9
Some college, no degree	181	100.0	39.8	57.5	2.8
Associate degree	62	100.0	51.6	46.8	1.6
Bachelor degree	167	100.0	82.6	15.6	1.8

[1] Includes service workers.

NOTE.–Respondents are young males, most of whom were 22-23 years old. Only employed workers who could be classified in the 3 categories of job type are included.

SOURCE: University of Michigan, Institute for Social Research, Survey Research Center, *Youth in Transition*, unpublished data.

Table 5.7.–Unemployment rates for high school dropouts,[1] by race and sex: March 1968 to March 1975

Race and sex	Percent of high school dropouts unemployed[2]							
	1968	1969	1970	1971	1972	1973	1974	1975
Total								
Both sexes	5.4	4.9	6.2	8.7	8.2	7.1	9.6	15.2
Males	4.8	4.2	5.6	7.9	7.6	6.5	8.9	14.7
Females	6.6	6.2	7.4	9.8	9.2	8.0	10.6	15.9
White								
Both sexes	4.6	4.4	5.6	8.1	7.1	6.2	8.7	14.0
Males	4.0	3.8	5.1	7.6	6.8	5.9	7.8	13.4
Females	5.8	5.5	6.7	8.8	7.7	6.8	10.0	15.0
Black and other races								
Both sexes	9.9	7.7	9.5	11.7	13.6	11.6	14.7	22.0
Males	9.6	6.6	8.8	9.7	12.1	10.3	15.5	23.1
Females	10.3	9.2	10.3	14.3	15.5	13.3	13.6	20.5

[1] Defined as persons with 1 to 3 years of high school.

[2] Data for 1968 through 1973 are for workers 18 years old and older and for 1974 and 1975 are for workers 16 years old and over.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report* No. 161, 1974, and unpublished data.

Table 5.8.–Unemployment rates for college graduates, by race and sex: March 1968 to March 1975

Race and sex	Percent of college graduates unemployed[2]							
	1968	1969	1970	1971	1972	1973	1974	1975
Total								
Both sexes	1.0	0.9	1.5	2.3	2.5	2.1	2.0	2.9
Males	.7	.8	1.2	2.1	2.2	1.8	1.8	2.5
Females	1.6	1.1	2.0	2.8	3.1	2.7	2.3	3.6
White								
Both sexes	1.0	.9	1.5	2.2	2.5	2.0	1.8	2.8
Males	.7	.8	1.2	2.1	2.2	1.8	1.6	2.4
Females	1.7	1.2	2.1	2.6	3.1	2.6	2.3	3.6
Black and other races								
Both sexes	1.4	1.0	1.4	3.5	2.8	2.3	3.4	4.0
Males	2.2	1.1	1.4	1.9	2.7	1.7	4.1	3.9
Females	.6	.7	1.5	5.3	3.0	2.8	2.5	4.1

[1] Data for 1968 through 1973 are for workers 18 years old and older and for years 1974 and 1975 are for workers 16 years old and over.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report* No. 161, 1974, and unpublished data.

Table 5.9.–Labor force participation rates of persons aged 25-34, by sex and years of school completed: March 1964, 1968, 1972, and 1975

Years of school completed and sex	Percent of population in labor force			
	1964	1968	1972	1975
Males aged 25-34				
Elementary school:				
8 years	95.4	97.9	92.6	94.1
High school:				
1-3 years	98.4	98.3	95.5	93.8
4 years	98.5	98.5	97.7	97.2
College:				
1-3 years	95.7	95.4	94.1	93.9
4 years	97.5	98.0	97.3	97.4
5 years or more	93.3	92.1	93.3	94.2
Females aged 25-34				
Elementary school:				
8 years	39.0	36.2	39.1	39.6
High school:				
1-3 years	35.8	41.2	40.8	42.6
4 years	36.4	41.6	47.3	53.5
College:				
1-3 years	35.4	44.2	49.9	57.6
4 years	48.1	51.9	57.8	64.1
5 years or more	64.6	68.6	70.7	79.1

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; 1964: *Special Labor Report No. 53*; 1968: *Special Labor Report No. 103*; 1972: *Special Labor Report No. 148*; 1975: *Special Labor Report* in print.

Table 5.10.–Labor force participation rates of the population 16 to 34 years, by age, sex, and years of school completed: March 1975

Years of school completed and sex	Percent of population in labor force			
	16-17 years	18-19 years	20-24 years	25-34 years
Males				
Elementary school:				
8 years	34.1	76.1	86.6	94.1
High school:				
1 to 3 years	44.1	62.1	88.3	93.8
4 years	41.2	73.3	93.6	97.2
College:				
1 to 3 years	31.5	49.2	68.9	93.9
4 years	–	–	87.7	97.4
5 years or more	–	–	66.9	94.2
Females				
Elementary school:				
8 years	18.0	(1)	38.4	39.6
High school:				
1 to 3 years	36.1	45.9	39.6	42.6
4 years	60.7	63.6	66.1	53.5
College:				
1 to 3 years	(1)	44.8	62.8	57.6
4 years	–	(1)	86.8	64.1
5 years or more	–	–	81.7	79.1

[1] Percent not shown where base is less than 75,000.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report*, in print.

Table 5.12.–Educational attainment of the civilian labor force 25 years old and over: 1957 to 1959 average, 1970 to 1972 average, and 1980 and 1990 projected

Year	Total	Elementary school			High school		College			
	Percent	Less than 5 years[1]	5 to 7 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more	4 years	5 years or more
1957-59 average[2]	100.0	6.3	11.4	16.8	19.2	27.8	8.4	10.2	(3)	(3)
1970-72 average	100.0	2.6	6.4	10.0	16.9	37.5	12.0	14.6	8.3	6.3
Projected: 1980	100.0	1.5	3.9	6.4	15.1	40.7	14.0	18.5	10.4	8.1
1990	100.0	.6	1.9	3.6	12.5	41.2	16.4	23.8	12.7	11.1

[1] Includes persons reporting no formal education.
[2] Totals exclude persons whose educational attainment was not reported.
[3] Not available.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report No. 160*, 1974.

Table 5.13.–Employment by major occupational group: 1960, 1972, and projected for 1980 and 1985

(Numbers in thousands)

Occupational group	1960[1]		1972		1980		1985	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	**65,778**	**100.0**	**81,703**	**100.0**	**95,800**	**100.0**	**101,500**	**100.0**
White-collar workers	28,351	43.1	39,092	47.8	49,300	51.5	53,700	52.9
Professional and technical workers	7,236	11.0	11,459	14.0	15,000	15.7	17,000	16.8
Managers and administrators	7,367	11.2	8,032	9.8	10,100	10.5	10,500	10.3
Salesworkers	4,210	6.4	5,354	6.6	6,300	6.6	6,500	6.4
Clerical workers	9,538	14.5	14,247	17.4	17,900	18.7	19,700	19.4
Blue-collar workers	23,877	36.3	28,576	35.0	31,800	33.1	32,800	32.3
Craft and kindred workers	8,748	13.3	10,810	13.2	12,300	12.8	13,000	12.8
Operatives[2]	11,380	17.3	13,549	16.6	15,000	15.6	15,300	15.1
Nonfarm laborers	3,749	5.7	4,217	5.2	4,500	4.7	4,500	4.4
Service workers	8,354	12.7	10,966	13.4	12,700	13.3	13,400	13.2
Private household workers	1,965	3.0	1,437	1.8	1,300	1.3	1,100	1.1
Other service workers	6,387	9.7	9,529	11.6	11,400	12.0	12,300	12.1
Farm workers	5,196	7.9	3,069	3.8	2,000	2.1	1,600	1.6

[1] Data for 1960 were adjusted to reflect the occupational classification in the 1970 census to make them comparable to the 1972 and projected 1980 and 1985 data.

[2] Includes the 1970 census classifications "operatives, except transport" and "transport equipment operatives."

NOTE.–Detail may not add to totals because of rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Manpower and Training Needs,* 1974.

Table 5.14.–Average annual rates of employment change, by major occupational group: 1960 to 1972 and projected for 1972 to 1985

Occupational group	Annual rate, in percent			
	1960 to 1972	Projected		
		1972 to 1985	1972 to 1980	1980 to 1985
Total	1.8	1.7	2.0	1.2
White-collar workers	2.7	2.5	3.0	1.7
Professional and technical workers	3.9	3.1	3.5	2.5
Managers and administrators	.7	2.0	2.8	.8
Salesworkers	2.0	1.5	2.1	.5
Clerical workers	3.4	2.5	2.9	1.9
Blue-collar workers	1.5	1.1	1.3	.7
Craft and kindred workers	1.6	1.4	1.6	1.2
Operatives	1.5	1.0	1.6	.5
Nonfarm laborers	1.0	.4	.7	0
Service workers	2.3	1.6	1.9	1.0
Private household workers	–2.6	–2.4	–1.7	–3.4
Other service workers	3.4	2.0	2.4	1.4
Farm workers	–4.5	–5.0	–5.4	–4.4

NOTE.–All data reflect the occupational classification into major groups used in the 1970 census. "Operatives, except transport" and "transport equipment operatives" were combined into one group, "Operatives."

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Manpower and Training Needs*, 1974.

Table 5.15.–Occupational aspirations of high school class of 1972 during their senior year and 2½ years later, and composition of the labor force by occupational group: 1972 and projected to 1985

Occupational group	Percentage distributions			
	Occupational aspirations of the high school class of 1972[1]		Labor force	
	1972 in high school	1974–2½ years after leaving high school[2]	1972 actual	1985 projected
Total[3]	100.0	100.0	100.0	100.0
Professional and technical workers	54.0	49.9	14.1	16.8
Clerical workers	16.0	12.7	17.4	19.4
Managers, officials, and proprietors	5.0	11.7	9.8	10.3
Service workers	7.0	4.9	13.5	13.2
Sales workers	3.0	1.9	6.6	6.4
Craftsmen	8.0	9.6	13.2	12.8
Operatives	2.0	4.0	16.5	15.1
Laborers and farm workers	4.0	5.3	8.9	6.0

[1] Based on responses to questions asking what kind of work respondents would like to do (1972), and what kind of work they expect to be doing when they are 30 years old (1974).

[2] Preliminary data. Estimates are unweighted.

[3] Percentage distributions may not add to 100.0 because of rounding.

NOTE.–See Technical Note E.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, National Longitudinal Study of the High School Class of 1972, preliminary data and U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook*, 1972-73 and 1973-74 editions.

Table 6.1.– Elementary and secondary school instructional staff, by sex: 1870 to 1970

School year ending	Elementary and secondary school instructional staff (in thousands)		
	Total	Males	Females
1870	201	78	123
1880	289	123	164
1890	364	126	238
1900	423	127	296
1910	523	110	413
1920	657	93	[illegible]
1930	843	140	703
1940	875	195	681
1950	914	195	719
1960	1,387	402	985
1970	2,131	691	1,440

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics*, 1974.

Table 6.2 – Instructional staff in public elementary and secondary schools, by type of position: 1959-60 to 1973-74

School year	Total instructional staff	Type of position					
		Principals (including assistant principals)	Consultants or supervisors of instruction	Classroom teachers	Librarians	Guidance and psychological personnel	Other nonsupervisory instructional personnel
1959-60	1,464,031	63,554	13,775	1,354,958	15,816	15,173	755
1961-62	1,587,761	67,249	16,169	1,457,964	19,603	23,561	3,215
1963-64	1,716,577	72,634	18,718	1,567,974	23,769	29,622	3,860
1965-66	1,884,509	77,341	21,594	1,710,888	28,965	37,536	8,185
1967-68	2,071,246	85,507	29,005	1,863,967	33,838	46,381	12,548
1969-70	2,253,492	90,593	31,537	2,023,253	39,790	51,811	16,508
1971-72	2,321,607	97,211	37,495	2,069,838	41,954	59,744	15,365
1973-74	2,425,445	100,465	37,738	2,155,448	44,242	65,069	22,493

NOTE.–Numbers based on reports by States. In some States, classroom teachers includes other nonsupervisory personnel.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems.*

Table 6.4.–Pupil-teacher ratios in elementary and secondary day schools, by control and by organizational level: Fall 1955 to Fall 1978

Year (fall)	Public (actual)		Nonpublic (estimated)[1]	
	Elementary	Secondary	Elementary	Secondary
1955	30.2	20.9	40.4	15.7
1956	29.6	21.2	38.9	16.5
1957	29.1	21.3	38.5	17.9
1958	28.7	21.7	38.7	18.2
1959	28.7	21.5	38.8	18.5
1960	28.4	21.7	[2] 36.0	18.3
1961	28.3	21.7	37.4	18.6
1962	28.5	21.7	36.3	18.5
1963	28.4	21.5	35.3	18.5
1964	27.9	21.5	34.3	18.3
1965	27.6	20.8	[3] 33.5	[3] 18.1
1966	27.0	20.4	32.3	18.1
1967	26.3	20.3	31.1	18.1
1968	25.4	20.5	[2] 29.8	[3] 17.3
1969	24.8	20.0	27.9	17.1
1970	24.3	19.8	[2] 26.5	[3] 16.4
1971	[3] 24.9	[3] 19.3	25.5	16.3
1972	[3] 24.0	[3] 19.1	24.3	15.9
1973	22.9	19.3	23.4	15.6
1974	22.7	18.7	23.1	15.7
		Projected[4]		
1975	22.4	18.6	22.6	15.7
1976	22.1	18.4	22.2	15.7
1977	21.8	18.3	21.8	15.7
1978	21.5	18.1	21.4	15.7

[1] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are are estimated.

[2] Reported data from Office of Education surveys.

[3] Estimated on the basis of data from the National Education Association.

[4] Projections are based on the assumption that the pupil-teacher ratios will follow the 1963-1973 trend to 1983.

NOTE.–Estimates of pupil-teacher ratios for nonpublic schools have been revised several times; the latest revisions have been presented for each year.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics*, 1966 edition for the 1955-56 data, 1968 edition for 1957-60 data, 1972 edition for 1961-63 data, and 1975 edition for 1964-78 figures.

Table 6.5.– Alternative projections of additions to the teacher supply and estimated demand for additional certificated teachers: 1972 to 1982

(Number in thousands)

Year of graduation	Total bachelor's and master's degrees awarded	Projections of additions to teacher supply[1]			Estimated demand for additional certificated teachers[3]
		S_1 (20% of column 2)	S_2 (25% of column 2)	S_3 (30% of column 2)[2]	
1	2	3	4	5	6
1972-73	1,185	237	296	356	205
1973-74	1,223	245	306	367	203
1974-75	1,236	247	309	371	192
			Projected		
1975-76	1,241	248	310	372	182
1976-77	1,268	254	317	380	184
1977-78	1,335	267	334	401	164
1978-79	1,370	274	343	411	160
1979-80	1,390	278	348	417	147
1980-81	1,406	281	352	422	145
1981-82	1,427	285	357	428	158
1982-83	1,436	287	359	431	164

[1] Estimates S_1, S_2, and S_3 are based on assumptions of 20, 25, and 30 percent, respectively, of bachelor's and master's degree recipients in a particular year, being added to the teacher supply.

[2] According to the National Center for Education Statistics report, "Labor Force and Enrollment Status of 1971-72 College Graduates With Emphasis on Elementary and Secondary School Teachers," in preparation, 30 percent of bachelor's and master's degree recipients in 1972 were added to the teacher supply.

[3] The estimate of demand is based on changes in pupil-teacher ratios, enrollment changes, and a teacher turnover rate of 8 percent. For detailed information on the methods and assumptions employed to obtain estimates, see the sources.

NOTE.–According to unpublished historical estimates, approximately 75 percent of those eligible to teach actually seek a teaching position.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Projections of Education Statistics to 1984-85*, 1975 edition.

Table 6.6.– Membership of selected unions: 1964, 1972, and 1974

Union	Membership		
	1964	1972	1974
Teachers (AFT)	100,000	248,521	444,000
State, county employees	234,839	529,035	648,160
Auto workers (Ind.)	1,168,067	1,393,501	1,544,859
Teamsters (Ind.)	1,506.769	1,854,659	1,973,272
Steelworkers	965.000	1,400,000	1,300,000
Service employees	320,000	484,000	550,000
Retail clerks	427,555	633,221	650,876
Laborers	432,073	600,000	650,000
Communication workers	293,000	443,278	498,743
Electrical workers (IBEW)	806,000	956,579	991,228
Meat cutters	341,366	528,631	525,000
Government employees (AFGE)	138,642	292,809	300,000
Machinists	808,065	757,564	943,280
Operating engineers	310,942	401,537	415,395

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, news release August 12, 1975.

Table 6.7.– Teacher involvement in work stoppages: 1959 to 1973

Year	Number of stoppages	Workers involved	Man-days idle during year	Average no. of days idle per teacher
1959	2	210	670	3
1960	3	5,490	5,490	1
1961	1	20	20	1
1962	1	20,000	20,000	1
1963	2	2,200	2,590	1
1964	9	14,400	30,600	2
1965	5	1,720	7,880	4
1966	30	37,300	58,500	1
1967	76	92,400	969,300	10½
1968	88	145,000	2,180,000	15
1969	183	105,000	412,000	4
1970	152	94,800	935,600	10
1972	87	33,900	207,300	6
1973	117	51,400	620,700	12

NOTE.–Data on stoppages and workers involved refer to stoppages beginning in the year: man-days idle refer to all stoppages in effect during the year. Because of rounding, sums of individual items may not equal totals.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics, *Work Stoppages in Government, 1958-68,* Report 348, 1970; *Work Stoppages in Government, 1973,* Report 437, 1975; *Government Work Stoppages, 1960, 1969, and 1970,* 1971.

Table 6.8.–Average annual salary of instructional staff in regular public elementary and secondary schools: 1953-54 to 1983-84

Year	Number of instructional staff[1] (in thousands)	Salaries of instructional staff			
		Average annual salary		Total (in billions)	
		Current dollars	1974-75 dollars[1]	Current dollars	1974-75 dollars[1]
1953-54		$3,825	$7,396		
1955-56		4,156	8,007		
1957-58		4,702	8,520		
1959-60		5,174	9,121		
1961-62		5,700	9,818		
1963-64	1,717	6,277	10,473	$11.1	$16.3
1965-66	1,885	6,935	11,249	13.1	21.2
1967-68	2,071	7,905	11,617	16.4	24.9
1969-70	2,253	8,840	12,123	19.9	27.3
1971-72	2,288	10,100	12,713	23.1	29.1
1973-74[2]	2,379	11,253	12,496	26.8	29.7
			Projected		
1975-76	2,426	13,400	12,300	32.5	29.8
1977-78	2,427	–	12,700	–	30.8
1979-80	2,383	–	12,900	–	30.7
1981-82	2,344	–	13,100	–	30.7
1983-84	2,354	–	13,200	–	31.1

[1] Based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

[2] Salary estimate from unpublished data by the National Education Association.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems* and *Fall Statistics of Public Schools*. Conversion to 1974-75 dollars was based on the Consumer Price Index prepared by Bureau of Labor Statistics, U.S. Department of Labor.

Table 6.10.–Educational staff[1] receiving training and expenditures for training in Federally aided programs operated by local education agencies, by source of funds: Regular school term 1972-73 and summer 1973

Source of funds	Number of staff receiving training[3]	Amount of training expenditures	Percent of training expenditures
Total	[3]344,767	$48,861,000	100.0
ESEA title I	182,613	18,380,000	38.0
ESEA title III	56,322	7,668,000	16.0
Follow Through	13,550	1,940,000	4.0
Emergency School Aid Act	14,644	1,517,000	3.0
Education Professions Development Act	15,075	7,962,000	16.0
Other Federal sources	62,563	11,394,000	23.0

[1] Includes teachers, other professional staff members, education aides, and other nonprofessional staff members.

[2] Estimated.

[3] Duplicated count; staff may receive training in more than one type of program.

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Consolidated Program Information Report, 1972-73, unpublished data.

Table 6.11.–Staff members and volunteers assigned to Federally aided programs, by pupil population group served: Regular school term 1972-73 and summer 1973

Pupil population group	Assignment[1]							
	Teachers		Other professional[2]		Non professionals		Technical[4]	
	Regular	Summer	Regular	Summer	Regular	Summer	Regular	Summer
Total	**276,496**	**51,506**	**36,953**	**7,648**	**255,195**	**39,206**	**20,503**	**6,854**
Children from low-income areas	108,905	41,728	18,491	5,679	117,765	31,005	14,432	6,048
Handicapped children	11,921	635	2,172	291	5,672	1,601	620	17
Children from limited- or non-English speaking environments	5,473	775	790	115	3,532	573	2,221	65
Children of migratory workers	2,842	2,805	639	630	4,048	3,163	82	337
Neglected and delinquent children	929	908	216	89	487	287	107	50
Dropouts, potential dropouts, and former dropouts	2,612	287	564	163	1,130	161	87	5
General elementary/secondary population	131,421	2,811	12,891	501	117,230	1,927	2,441	196
Adults (A.B.E. and others)	12,393	1,557	1,190	180	5,331	489	513	136

[1] A staff member is counted more than once of s/he was assigned to both regular and summer school term programs.

[2] Includes curriculum specialists, therapists, counselors, dietitians, physicians, etc., (does not include administrators).

[3] Includes teacher aides, clerks, monitors, etc.

[4] Includes teaching assistants, student teachers, practical nurses, dental hygenists, etc.

NOTE.–See Technical Note B.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, Consolidated Program Information Report, 1972-73, unpublished data.

Table 6.12.–Number and average salary of full-time instructional faculty on 9-10 month contracts in institutions of higher education, by level of institutional unit, rank and sex: 50 states and District of Columbia, 1975-76

Rank and sex	Total		Universities		Other 4-year		2-year	
	No. of faculty	Average salary	No. of faculty	Average salary	No. of faculty	Average salary	No. of faculty	Average salary
Total	289,048	$16,571	103,466	$18,170	124,910	$15,724	60,672	$15,588
Males	219,028	17,312	84,660	18,949	93,963	16,346	40,405	16,128
Females	70,020	14,252	18,806	14,660	30,947	13,833	20,267	14,512
Professors	65,264	22,455	32,439	24,310	28,236	20,818	3,539	19,005
Males	58,874	22,715	30,478	24,485	25,681	20,975	2,715	19,313
Females	6,390	20,057	1,961	21,582	3,605	19,700	824	17,991
Associate professors	68,672	16,955	28,264	17,709	35,022	16,346	5,386	16,956
Males	57,119	17,099	24,520	17,828	28,568	16,487	4,031	17,004
Females	11,553	16,241	3,744	16,928	6,454	15,721	1,355	16,815
Assistant professors	83,472	13,940	31,541	14,456	44,122	13,539	7,809	14,118
Males	59,571	14,125	23,539	14,638	30,994	13,725	5,038	14,232
Females	23,901	13,469	8,002	13,919	13,128	13,101	2,771	13,911
Instructors	53,639	13,647	8,512	11,659	14,197	11,002	30,920	15,405
Males	31,905	14,412	4,465	11,963	7,266	11,275	20,174	16,082
Females	21,734	12,525	4,047	11,322	6,931	10,715	10,756	14,144
Lecturers	3,620	12,258	2,454	13,349	744	12,058	422	14,847
Males	2,186	13,918	1,531	12,924	430	12,686	225	16,140
Females	1,434	12,255	923	12,377	314	11,197	167	13,370
Undesignated rank	14,381	15,046	256	11,237	1,539	12,592	12,586	15,421
Males	9,373	15,572	127	12,084	1,024	13,227	8,222	15,918
Females	5,008	14,060	129	10,602	515	11,328	4,364	14,484

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, preliminary data, 1976.

Table 6.13.–Females as percent of total full-time instructional faculty on 9-10-month contracts in institutions of higher education, by academic rank: Selected years 1962-63 to 1975-76

Academic rank	1962-63	1972-73	1974-75	1975-76
All ranks	19.0	20.6	24.1	24.2
Professors	8.7	9.4	10.1	9.8
Associate professors	16.1	15.8	17.0	16.8
Assistant professors	22.5	23.1	27.3	28.6
Instructors	30.9	43.5	41.0	40.5

NOTE.–The data are shown for purposes of general comparison within the limitations of those data. The 1962 and 1972 data include only 4-year institutions of higher education, while the recent data also includes 2-year institutions.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Teaching Faculty in Universities and 4-year Colleges, Spring 1963,* and early releases, 1974-75 and 1975-76.

Table 6.14.–Females as percent of total full-time instructional faculty on 9-10-month contracts in institutional units of higher education, by academic rank and control and level of institutional units: 1975-76

Control and level of institutional unit	Total, all ranks	Professors	Associate professors	Assistant professors	Instructors	Lecturers	Undesignated rank
All institutional units	24.2	9.8	16.8	28.6	40.5	39.6	34.8
Publicly controlled	24.6	9.9	16.3	28.7	39.1	39.1	34.8
Universities	18.8	6.3	13.1	25.7	48.6	38.0	50.0
Other 4-year	24.1	12.2	17.4	29.5	49.6	38.8	42.8
2-year	32.9	22.0	25.3	35.1	34.2	45.2	34.3
Privately controlled	23.2	9.6	18.1	28.6	47.5	41.5	35.1
Universities	16.3	5.4	13.8	24.5	43.4	36.0	55.6
Other four-year	25.7	12.5	20.2	30.1	47.8	47.4	31.5
Two-year	42.4	36.7	23.5	40.6	53.3	69.2	40.4

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, preliminary data, 1976.

Table 6.15.–Collective bargaining in institutions of higher education: July 1975

Campuses[1] with bargaining agents	Total	Public			Private		
		Total	4-yr.	2-yr.	Total	4-yr.	2-yr.
Total	**431**	**375**	**109**	**266**	**56**	**48**	**8**
AAUP	38	17	14	3	21	20	1
NEA	166	155	38	117	11	8	3
AAUP-NEA	9	9	2	7	0	0	0
AAUP-AFT	1	1	1	0	0	0	0
AFT (AFL-CIO)	113	102	18	84	11	8	3
NEA-AFT	64	58	33	25	6	6	0
Independent	40	33	3	30	7	6	1
Campuses[1] with or renegotiating, contracts							
Total	**360**	**325**	**93**	**232**	**35**	**34**	**1**
AAUP	30	12	10	2	18	18	0
NEA	141	133	29	104	8	7	1
AAUP-NEA	9	9	2	7	0	0	0
AAUP-AFT	0	0	0	0	0	0	0
AFT (AFL-CIO)	90	87	18	69	3	3	0
AFT-NEA	62	57	32	25	5	5	0
Independent	28	27	2	25	1	1	0

[1] Each campus in multi-campus institutions is counted separately.

SOURCE: Association of American Colleges, Academic Collective Bargaining Information Service, Washington, D.C., *Special Report No. 12 Update*, July 1975.

Table 6.16.--Average salaries[1] of full-time instructional staff on 9-10-month contracts in institutions of higher education, by type of institution: 1961-62 to 1975-76

Type of institution and staff	1961-62[2]	1963-64[2]	1966-67	1967-68	1972-73	1974-75	1975-76
Total							
Professor	10,650	11,724			18,916	20,653	22,445
Associate professor	8,290	9,096			14,354	15,920	16,949
Assistant professor	6,990	7,641			12,046	13,104	13,934
Instructor	5,640	6,270			10,662	12,825	13,594
Universities							
Professor	11,240	12,543	15,614	16,432	20,792	22,514	24,262
Associate professor	8,500	9,460	11,498	12,167	14,983	16,623	17,668
Assistant professor	7,100	7,842	9,176	9,965	12,464	13,582	14,430
Instructor	5,650	6,227	7,128	7,617	9,779	10,737	11,594
Other 4-year institutions							
Professor	10,360	11,165	12,261	13,148	17,131	18,875	20,834
Associate professor	8,260	8,905	9,886	10,613	13,833	15,214	16,360
Assistant professor	6,980	7,539	8,404	8,950	11,741	12,658	13,541
Instructor	5,760	6,386	6,909	7,338	9,462	10,404	11,001
2-year institutions							
Professor	([3])	([3])	9,574	10,152	16,231	18,343	19,005
Associate professor	([3])	([3])	10,201	10,928	14,426	16,569	16,956
Assistant professor	([3])	([3])	8,507	9,113	12,181	13,713	14,118
Instructor	([3])	([3])	8,394	8,658	11,959	14,716	15,394

[1] In current dollars.

[2] Data for 1961-62 and 1963-64 are for university undergraduate, and liberal arts undergraduate institutions. Totals also include teachers undergraduate institutions.

[3] Junior college faculty not ranked.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics*, 1962, 1964, 1970, and 1974 editions, and early releases.

Table 6.17.--Sex and employment status of staff in noncollegiate postsecondary schools with occupational programs: 1973

Sex and employment status	Instructional	Administrative/managerial	Clerical/maintenance
Total	64,948	18,480	20,631
Full time	43,323	16,319	14,857
Part time	21,625	2,161	5,774
Male	33,959	11,956	4,785
Full time	21,099	10,716	3,593
Part time	12,860	1,240	1,192
Female	30,989	6,524	15,846
Full time	22,224	5,603	11,264
Part time	8,765	921	4,582

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Survey of Programs and Enrollment in Noncollegiate Postsecondary Schools with Occupational Programs, 1973.*

Table 7.1.–Revenues of public elementary and secondary schools, by source of funds: Selected years, 1889-90 to 1973-74

School year	Amount of revenues by source (millions of dollars)				Percentage of revenues by source			
	Total	Federal	State	Local	Total	Federal	State	Local
1889-90	$ 143	0	[1] 30	[1] 113	100.0	0	20.9	79.1
1899-1900	220	0	([2])	([2])	100.0	.0	([2])	([2])
1909-10	433	0	([2])	([2])	100.0	.0	([2])	([2])
1919-20	970	2	160	808	100.0	.3	16.5	83.2
1929-30	2,089	7	354	1,728	100.0	.3	17.0	82.7
1939-40	2,260	40	684	1,536	100.0	1.8	30.3	68.0
1949-50	5,437	156	2,166	3,115	100.0	2.9	39.8	57.3
1959-60	14,747	652	5,768	8,327	100.0	4.4	39.1	56.5
1969-70	40,267	3,219	16,063	20,985	100.0	8.0	39.9	52.1
1973-74	58,230	4,930	24,113	29,187	100.0	8.5	41.4	50.1

[1] Estimated.

[2] Not available.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics*, 1975 edition, and unpublished estimates.

Table 7.5.–Expenditures of public and nonpublic elementary and secondary schools: 1964-65 to 1980-81

(In billions of 1974-75 dollars)

Year and control	Expenditures[1]			
	Total	Current expenditures	Capital outlay	Interest
1964-65:				
Total	$46.0	$36.0	$8.5	$1.5
Public	40.6	31.8	7.5	1.3
Nonpublic	5.4	4.2	1.0	.2
1965-66:				
Total	49.6	39.7	8.4	1.5
Public	43.8	35.1	7.4	1.3
Nonpublic	5.8	4.6	1.0	.2
1966-67:				
Total	52.9	42.9	8.3	1.7
Public	47.0	38.1	7.4	1.5
Nonpublic	5.9	4.8	.9	.2
1967-68:				
Total	57.3	47.2	8.4	1.7
Public	51.1	42.1	7.5	1.5
Nonpublic	6.2	5.1	.9	.2
1968-69:				
Total	58.5	48.3	8.5	1.7
Public	52.4	43.3	7.6	1.5
Nonpublic	6.1	5.0	.9	.2
1969-70:				
Total	62.8	53.1	7.9	1.8
Public	56.6	47.9	7.1	1.6
Nonpublic	6.2	5.2	.8	.2
1970-71:				
Total	64.7	55.0	7.8	1.9
Public	58.1	49.4	7.0	1.7
Nonpublic	6.6	5.6	.8	.2
1971-72:				
Total	67.1	59.0	6.2	1.9
Public	60.4	53.1	5.6	1.7
Nonpublic	6.7	5.9	.6	.2
1972-73:				
Total	70.5	63.2	5.2	2.1
Public	63.6	57.0	4.7	1.9
Nonpublic	6.9	6.2	.5	.2
1973-74:				
Total	71.0	63.0	5.9	2.1
Public	64.2	57.0	5.3	1.9
Nonpublic	6.8	6.0	.6	.2
1974-75:				
Total	68.2	60.1	6.1	2.0
Public	61.6	54.3	5.5	1.8
Nonpublic	6.6	5.8	.6	.2

Table 7.5.–Expenditures of public and nonpublic elementary and secondary schools: 1971-72 to 1977-78–Continued

(In billions of 1974-75 dollars)

Year and control	Expenditures[1]			
	Total	Current expenditures	Capital outlay	Interest
	Projected			
1975-76:				
Total	69.0	61.2	5.7	2.1
Public	62.5	55.4	5.2	1.9
Nonpublic	6.5	5.8	.5	.2
1976-77:				
Total	69.7	62.2	5.4	2.1
Public	63.2	56.4	4.9	1.9
Nonpublic	6.5	5.8	.5	.2
1977-78:				
Total	69.8	62.6	5.0	2.2
Public	63.3	56.8	4.5	2.0
Nonpublic	6.5	5.8	.3	.2
1978-79:				
Total	69.5	62.6	4.6	2.3
Public	63.1	56.8	4.2	2.1
Nonpublic	6.4	5.8	.4	.2
1979-80:				
Total	68.8	62.0	4.4	2.4
Public	62.5	56.3	4.0	2.2
Nonpublic	6.3	5.7	.4	.2
1980-81:				
Total	68.8	62.0	4.4	2.4
Public	62.3	56.1	4.0	2.2
Nonpublic	6.5	5.9	.4	.2

[1] Nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools.

NOTE.–Data are for 50 States and the District of Columbia.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1984-85*, 1975 edition.

Table 7.6.–Current expenditures per pupil for public elementary and secondary education: 1955-56 to 1979-80

Year	Expenditure per pupil in average daily attendance	
	Current dollars	1974-75[1] dollars
1955-56	$ 294	$ 510
1957-58	341	557
1959-60	375	595
1961-62	419	650
1963-64	460	695
1965-66	537	872
1967-68	658	1,002
1969-70	816	1,119
1971-72	990	1,246
1973-74	1,147	1,274
	Projected	
1975-76	1,409	1,295
1977-78		1,358
1979-80		1,403

[1] 1955-56 to 1963-64 figures are expressed in 1972-73 dollars.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Digest of Educational Statistics*, 1975 edition, and *Projections of Educational Statistics to 1984-85*, 1975 edition.

Table 7.9.–Percent distribution of school systems, by current expenditures per pupil and by enrollment size of school system and metropolitan status: 1973-74

Enrollment size of system, metropolitan status	Percent distribution, by current expenditures per pupil							Median expenditure
	Total	Under $600	$600 to $799	$800 to $999	$1,000 to $1,199	$1,200 to $1,399	$1,400 and over	
Total United States	**100.0**	**3.98**	**18.22**	**26.43**	**24.63**	**13.37**	**13.35**	**$1,008**
Metropolitan, central	100.0	3.45	11.88	26.28	28.88	16.15	13.35	1,042
Metropolitan, other	100.0	5.08	13.22	23.92	25.03	17.14	15.62	1,053
Nonmetropolitan	100.0	3.44	20.92	27.69	24.30	[illegible]	12.24	990
Enrollment 25,000 and over	100.0	3.93	14.50	31.73	24.85	12.91	12.08	995
Metropolitan, central	100.0	5.13	13.25	21.76	25.54	17.43	16.89	1,046
Metropolitan, other	100.0	2.44	15.86	43.90	24.39	7.32	6.10	949
Nonmetropolitan	100.0	-0-	29.92	70.08	-0-	-0-	-0-	845
Enrollment 10,000 to 24,999	100.0	1.86	15.28	27.75	26.86	17.04	11.22	1,040
Metropolitan, central	100.0	1.49	11.95	26.89	31.38	18.25	10.04	1,062
Metropolitan, other	100.0	2.56	12.52	23.62	25.42	21.18	14.69	1,088
Nonmetropolitan	100.0	-0-	29.56	43.08	25.18	1.09	1.09	892
Enrollment 5,000 to 9,999	100.0	3.61	16.06	27.90	26.19	13.39	12.84	1,013
Metropolitan, central	100.0	2.94	13.81	26.42	27.68	14.46	14.68	1,047
Metropolitan, other	100.0	2.95	9.57	20.94	29.76	17.98	18.81	1,098
Nonmetropolitan	100.0	4.90	27.84	40.37	19.68	5.15	2.06	893
Enrollment 2,500 to 4,999	100.0	1.89	20.47	27.32	25.66	13.78	10.86	1,001
Metropolitan, central	100.0	-0-	-0-	37.87	44.38	-0-	17.76	1,038
Metropolitan, other	100.0	1.12	14.65	19.16	29.67	19.56	15.84	1,086
Nonmetropolitan	100.0	2.80	27.32	36.21	20.85	7.61	5.21	916
Enrollment under 2,500	100.0	4.46	18.25	25.99	24.20	13.14	13.95	1,008
Metropolitan, central	100.0	28.35	-0-	53.49	6.05	12.10	-0-	998
Metropolitan, other	100.0	7.30	13.57	25.73	22.28	15.93	15.18	1,027
Nonmetropolitan	100.0	3.48	19.85	26.05	24.86	12.20	13.55	1,003

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, preliminary data.

Table 8.1.–Average years of schooling completed by adults (ages 25-64): Selected countries, 1970[1]

Country	Total regular education received (excluding precompulsory education)	Compulsory education received before age 15	Education received at ages 15-18 inclusive	Education received after age 18
Canada[3]	9.7	7.4	1.9	0.47
France[3]	9.1	7.7	1.0	.35
Germany (F.R.)	9.2	7.8	1.2	.29
Italy[2,5]	6.4	5.4	.5	.40
Japan	10.0	7.8	1.8	.35
Netherlands[4,5]	8.5	7.1	1.1	.38
Norway[5,6]	8.8	7.0	1.3	.49
Sweden[6]	8.7	6.7	1.6	.44
United Kingdom[5]	10.2	9.0	1.0	.25
United States	11.1	7.6	2.7	.76

[1] Data are for adults who have left the educational system.

[2] Data are for 1971.

[3] Data are for 1968.

[4] Active population.

[5] Estimates derived by projections from censuses taken in or near 1960 with the help of enrollment data.

[6] Includes age group 25-59.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook*, 1974, vol. I, section VI; and later census and survey information.

Table 8.2.–Estimated growth rates in average years of education completed by adults (ages 25-64): Selected countries, 1960 to 1970 and 1970 to 1980

Country	Average annual compound rate of growth of years of education received							
	Total		Compulsory, below age 15		At age 15 to 18		At age 19 and over	
	1960 to 1970	1970 to 1980 (projected)	1960 to 1970	1970 to 1980 (projected)	1960 to 1970	1970 to 1980 (projected)	1960 to 1970	1970 to 1980 (projected)
Canada[1]	0.9	1.2	0.3	0.3	2.0	2.1	3.9	6.5
France[2]	.6	1.0	.2	.2	2.9	4.3	3.0	5.9
Germany (F.R.)	.5	.2	.2	.0	2.7	1.0	2.8	3.3
Italy[1]	1.4	1.8	[illegible]	1.1	2.3	5.7	7.2	4.5
Japan	1.1	.8	.3	.1	4.5	2.8	4.8	4.2
Netherlands[3]	.7	1.1	.3	.3	3.3	4.0	3.9	5.8
Norway[4]	.7	1.3	.0	.0	2.9	4.1	7.4	7.6
Sweden[4]	.8	1.3	.2	.2	3.8	3.1	3.2	7.9
United Kingdom[3]	.4	.6	.0	.0	4.1	4.1	3.9	4.5
United States	.9	1.2	.2	.2	2.0	1.5	3.1	7.7

[1] Data are for 1971, projected to 1981.

[2] Data are for 1968, projected to 1978.

[3] Active population.

[4] Age group 25 to 59 years old.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook*, 1975, volume I, section VI.

Table 8.3.–Average years of full-time education received per capita by population ages 15 or over, by sex: Selected countries, selected years

Country	Year	Total education received		Compulsory education received below age 15		Education received at age 15-18 and over		Education received at age 19 and over	
		Males	Females	Males	Females	Males	Females	Males	Females
Canada	1971	9.6	9.6	7.3	7.4	1.8	1.9	0.47	0.27
France	1968	9.1	8.8	7.7	7.6	1.1	1.0	.36	.19
Germany (F.R.)[1]	1970	9.3	8.7	7.7	7.7	1.2	.9	.33	.12
Italy[2]	1961	6.0	5.2	5.3	4.8	.5	.3	.24	.08
Japan	1970	10.3	9.6	7.8	7.7	2.0	1.8	.45	.14
Netherlands[3]	1960	7.9	7.9	6.9	7.0	.7	.8	.21	.20
Norway	1960	8.3	7.9	7.0	7.0	1.0	.8	.29	.11
Sweden[4]	1970	9.2	8.8	6.8	6.8	1.9	1.8	.51	.30
United Kingdom	1961	9.8	9.7	8.9	8.9	.8	.7	.18	.10
United States	1970	10.7	10.6	7.5	7.6	2.4	2.5	.72	.51

[1] Total population no longer attending school.
[2] Ages 14 and over.
[3] Active population.
[4] Ages 15-59.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook, 1974, vol. I*, section VI; and later census and survey information.

Table 8.4.–Average score of students on international achievement tests: Selected countries, 1970

14-year-old students

Country	Mathematics[1], [2]		Science		Reading comprehension		Literature	
	Score out of 68 items	Percentage correct	Score out of 80 items	Percentage correct	Score out of 52 items	Percentage correct	Score out of 37 items	Percentage correct
France	18.3	26.9	NA		NA		NA	
Germany (F.R.)	NA		23.7	29.6	NA		NA	
Italy	NA		18.5	23.1	28.0	53.8	16.4	44.3
Japan	31.2	45.9	31.2	39.0	NA		NA	
Netherlands	23.9	35.1	17.8	22.3	25.2	48.5	NA	
Sweden	15.7	23.1	21.7	27.1	25.6	49.2	15.9	43.0
United Kingdom (England)	19.3	28.4	21.3	26.6	25.3	48.7	16.1	43.5
United States	16.2	23.4	21.6	27.0	27.3	52.5	16.5	44.6

Final year secondary students

Country	Mathematics[2]		Science		Reading comprehension		Literature	
	Score out of 69 items	Percentage correct	Score out of 60 items	Percentage correct	Score out of 54 items	Percentage correct	Score out of 37 items	Percentage correct
France	33.4	48.4	18.3	30.5	NA		NA	
Germany (F.R.)	28.8	41.7	26.9	44.8	NA		NA	
Italy	NA		15.9	26.5	24.3	45.0	21.0	56.8
Japan	31.4	45.5	NA		NA		NA	
Netherlands	31.9	46.2	23.3	38.8	31.2	57.8	NA	
Sweden	27.3	39.6	19.2	32.0	26.8	49.6	23.3	63.0
United Kingdom (England)	35.2	51.0	23.1	38.5	33.6	62.2	26.4	71.4
United States	13.8	20.0	13.7	22.8	21.7	40.2	21.9	59.2

[1] 13-year-olds.
[2] The mathematics data were collected in 1964.

NOTES.–NA = Not available. Not all countries collected data on each subject area, hence NA indicates information was not collected.
See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *A Resume of the Surveys of the International Association for the Evaluation of Educational Achievement (I.E.A.)*, January 1974.

Table 8.5.–Average age at which schooling starts and finishes, and ratio of students to population: Selected countries, 1970

Country	Average age of entry into schooling	Average age at which schooling terminates	Average length of schooling (years)	Full- and part-time students as percent of total population[1]
Canada[2]	4.9	19.0	14.1	29.0
France[3]	3.3	18.0	14.7	20.4
Germany (F.R.)[4]	4.3	17.1	12.3	18.4
Italy[3]	4.2	16.9	12.7	17.3
Japan	5.0	18.2	13.2	21.0
Netherlands	4.2	17.7	13.5	21.8
Norway	6.8	18.5	11.7	19.1
Sweden[5]	6.0	18.6	12.6	17.0
United Kingdom	4.7	16.9	12.2	20.6
United States	4.8	20.0	15.2	[6]27.6

[1] Excludes preprimary.

[2] Excludes technical and vocational education other than that received in high schools.

[3] Excludes public and private agricultural training.

[4] Includes full-time equivalent of part-time compulsory vocational schools, assuming three part-time pupils equal one full-time one.

[5] Data are for 1972 and exclude special education.

[6] Includes only a very small part of special education.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook*, 1974 and 1975, vol. I & II; and unpublished information supplied by the O.E.C.D. Secretariat.

Table 8.6.–Growth of full-time enrollment in education, by level: Selected countries, 1960 to 1970

Country	Annual average compound growth rate					
	In school-age population		In enrollment		In enrollment not attributable to population change	
	Secondary	Higher	Secondary	Higher	Secondary	Higher
Canada	3.3	4.4	6.0	11.3	2.6	6.6
France	1.3	4.1	3.8	11.2	2.5	7.1
Germany (F.R.)	1.4	–2.1	3.3	7.3	1.9	9.6
Italy	–.2	.1	5.7	9.5	6.0	9.4
Japan	–1.3	2.0	–.2	9.0	1.1	6.9
Netherlands	.4	3.4	2.8	7.8	2.4	4.3
Norway	.9	4.2	NA	[1]9.4	NA	4.7
Sweden	–1.3	3.4	3.5	NA	4.9	NA
United Kingdom	–.1	2.4	[1]1.2	[1]10.0	[1]1.3	[1]7.4
United States[2]	2.8	4.1	3.1	8.3	.3	4.0

[1] Estimated.

[2] 1959-70.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook*, 1975, vol. I, section II.

Table 8.7.–Percent of enrollment in private educational institutions, by level of instruction: Selected countries, 1970

Country	Total	Level of instruction			
		Preprimary	Primary	Secondary	Higher
Canada	3.1	15.4	1.8	3.2	0.0
France	16.7	15.0	14.1	22.8	4.0
Germany (R.F.)	3.4	4.4	.6	5.4	3.7
Italy	19.2	94.1	7.0	7.[illegible]	.0
Japan	23.2	76.0	.6	26.8	76.3
Norway	2.4	.0	.4	3.6	10.3
Netherlands	71.7	74.8	72.4	73.8	47.1
United Kingdom	5.5	6.1	4.2	7.5	4.0
United States	14.1	30.4	11.9	9.8	26.8

NOTE.–See Technical Note A.

Organization for Economic Cooperation and Development, Paris, France, Estimates by OECD Secretariat.

Table 8.8.–Pupil-teacher ratios in primary education: Selected countries, 1960 and 1972[1]

Country	1960	1972
Canada	27.0	[2]24.7
France	[4]25.5	23.0
Germany (F.R.)	39.9	31.0
Italy	22.5	[3]20.2
Japan	34.9	24.5
Netherlands	34.0	29.1
Norway	26.7	19.6
Sweden	NA	[6]16.3
United Kingdom	[4]27.5	[2,6]25.6
United States	[5]31.6	25.7

[1] Excludes part-time pupils and part-time teachers.

[2] 1971.

[3] 1973.

[4] 1965.

[5] 1959.

[6] Estimated.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook*, 1974 & 1975, vol. I & II; and information supplied by the OECD Secretariat.

Table 8.9.– Full-time teachers as a percent of the labor force: Selected countries, 1970

Country	Full-time teachers, percent of labor force
Canada	3.7
France	[1]2.7
Germany (F.R.)	[2]1.3
Italy	3.3
Japan	2.0
Netherlands	[3]3.4
Norway	2.6
Sweden	[4]2.1
United Kingdom	2.0
United States	[3,5]3.4

[1] Incomplete data.

[2] Excludes university sector.

[3] Full- and part-time teachers.

[4] Full-time and full-time equivalent teachers.

[5] Excluding preprimary.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook, 1975, volume II*, and *Labour Force Statistics 1961-1972*, 1974.

Table 8.10.–Percent of population aged 15-18 enrolled in education[1]: Selected countries, 1970

Country	Percent enrolled		
	Total	Males	Females
Canada	74.5	76.1	72.8
France	54.8	51.3	57.4
Germany (F.R.)[2]	48.7	50.3	43.4
Italy[3]	41.8	46.6	36.9
Japan	67.0	68.5	64.9
Netherlands	52.5	60.3	44.3
Norway	63.9	NA	NA
Sweden[3]	67.9	NA	NA
United Kingdom	39.4	40.4	39.1
United States	84.3	86.5	82.2

[1] Full-time education only.

[2] Includes full-time equivalent of those attending compulsory part-time vocational schooling (full-time education covered 32.1 percent of the population).

[3] 1972.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, *Educational Statistics Yearbook, 1975, vol. II.*

Table 8.11.–Entry to higher education as a percent of the relevant age group by type of institution and by sex: Selected countries, 1970

Country	Percent of relevant age group entering higher education[1]								
	Total			University			Other higher education		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Canada[2]	33.6	37.2	29.9	16.7	18.6	14.8	16.9	18.6	15.1
France	22.4	NA	NA	15.0	NA	NA	7.4	NA	NA
Germany (F.R.)	15.8	22.6	8.7	10.4	12.7	8.0	5.4	9.9	.7
Italy	24.1	29.9	18.1	23.4	29.1	17.4	.7	.8	.7
Japan	23.8	29.7	17.6	16.7	26.7	6.4	7.0	3.0	11.2
Netherlands[3]	18.3	25.1	11.1	8.3	12.7	3.7	10.0	12.4	3.4
Norway	27.5	NA	NA	10.8	13.7	8.3	16.6	NA	NA
Sweden	44.7	NA	NA	30.5	NA	NA	14.2	NA	NA
United Kingdom[3]	20.3	23.2	17.3	10.6	14.4	6.7	9.7	8.7	10.6
United States[4]	46.5	52.8	40.6	29.3	32.7	26.4	17.1	20.1	14.2

[1] Includes full- and part-time.

[2] 1971.

[3] Full-time only.

[4] Figures by sex are estimated.

NOTE.–Percentages were calculated on the basis of the age group from which most entrants are normally taken. Measurement problems in presenting these data are discussed at some length in *Development of Higher Education, 1950-67, Analytical Report*, OECD, Paris, 1971.

See Technical Note A.

SOURCES: Organization for Economic Cooperation and Development, *Educational Statistics Yearbook*, 1974, vol. I, section III; *Educational Statistics Yearbook*, 1975, vol. II; and unpublished information supplied by the OECD Secretariat.

Table 8.12.--Public current expenditures on public education: Selected countries and selected years

Country	Year[1]	Enrollment in public education (millions)	Public expenditure on public education (billions of dollars)	GNP (billions of dollars)	Percent of GNP spent on public education	Factors affecting relative size of percent of GNP spent on public education		
						Percent of total population 3-24 years old	Public sector enrollment divided by 3-24-year-old population	Ratio of government expenditure per pupil to GNP per capita
Canada	1971	6.32	[2] $5.90	$91.16	6.5	43.2	67.9	0.222
France	1970	10.54	[2] 4.20	141.64	3.0	36.3	57.4	0.144
Germany (F.R.) .	[3] 1970	9.68	[2] 5.03	187.99	2.7	32.0	50.1	0.168
Japan	[4] 1971	17.91	[2] 6.89	236.13	2.9	37.5	45.5	0.170
Netherlands	[5] 1971	2.99	[2] 2.34	37.13	6.3	39.3	58.0	0.276
Norway	[6] 1972	.74	[3] 0.74	14.59	5.1	35.0	54.0	0.270
Sweden	[6] 1972	[7] 1.45	[2] 2.17	43.83	5.0	31.0	57.4	0.281
United Kingdom	1970	10.08	[2] 4.25	125.03	3.4	34.0	53.6	0.187
United States ...	[8] 1973	52.59	69.40	[9] 1,357.95	5.1	40.3	62.1	0.204

[1] Data for students and population were adjusted to a fiscal year basis. Unless otherwise specified, the figures include preprimary education, primary education, secondary education, higher education, other education and special education and therefore differ from the sum of Tables 8.65 and 8.66 below.

[2] The figures are adjusted to exclude expenditures on boarding and catering, transport, medical care and welfare and financial aid to students. The figures include public current expenditure that cannot be allocated by level.

[3] Includes full-time equivalent of part-time compulsory vocational schools (assuming three part-time pupils equal one full-time one).

[4] Includes full-time equivalent of part-time miscellaneous schools and correspondence courses of upper secondary schools (assuming three part-time pupils equal one full-time one).

[5] Includes all pupils (both public sector and private sector). Including public expenditure on private education.

[6] Excludes preprimary education.

[7] Estimates.

[8] Excludes a major part of special education.

[9] The GNP figures are adjusted to a fiscal year basis and also to conform to the OECD/United Nations standardized system of national accounts (old system for Germany and Japan, revised system for the other countries). The figures are somewhat different from those used in national sources, e.g. the U.S. national accounts figure used elsewhere in this report is $1,294.92 for 1973.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, estimates supplied by OECD Secretariat.

Table 8.13.–Public current expenditure on public primary and secondary education: Selected countries and selected years

Country	Year[1]	Enrollment in public education (millions)	Public expenditure on public primary & secondary education (billions of dollars)	Expenditure per pupil enrolled (dollars)	GNP (billions of dollars)	Percent of GNP spent on public primary and secondary education	Factors affecting relative size of percent of GNP spend on public and secondary education		
							Percent of total population 6-18 years old	Public sector enrollment divided by 6-18-year-old population	Ratio of Government expenditure per pupil to GNP per capita
Canada	[2]1971	5.66	$4.00	$ 751	$ 94.16	4.2	27.2	96.5	0.160
France	1970	7.68	[3]3.21	418	141.64	2.3	21.4	70.9	0.152
Germany (F.R.) .	[4]1970	8.92	[3]3.51	393	187.99	1.9	19.2	77.0	0.126
Japan	[5]1971	17.05	[3]5.25	308	236.13	2.2	20.1	80.6	0.136
Netherlands ...	1971	[6]2.25	[3]1.42	631	37.13	3.8	23.1	[6]74.2	0.224
Norway	1972	0.68	[3]0.59	868	14.59	4.1	20.5	84.9	0.233
Sweden	1972	[7]1.29	[3]1.41	1,093	43.83	3.2	17.7	89.9	0.201
United Kingdom	[8]1970	9.37	[3]3.05	326	125.03	2.4	19.4	86.8	0.142
United States ..	[2]1973	46.24	49.40	1,068	[9]1,357.95	3.6	24.8	88.6	0.164

[1] Data for pupils and population were adjusted to a fiscal year basis. Unless otherwise specified, these figures exclude preprimary education and special education.

[2] Includes preprimary education.

[3] The figures are adjusted to exclude expenditures on boarding and catering, transport, medical care and welfare and financial aid to students. The figures exclude public expenditure on private education.

[4] Includes preprimary education and full-time equivalent of part-time compulsory vocational schools (assuming three part-time pupils equal one full-time one).

[5] Includes full-time equivalent of part-time miscellaneous schools and correspondence courses of upper secondary schools (assuming three part-time pupils equal one full-time one).

[6] Includes all pupils (both public sector and private sector). Including public expenditure on public and private education.

[7] Estimates.

[8] Includes special education.

[9] The GNP figures are adjusted to a fiscal year basis and also to conform to the OECD/United Nations standardized system of national accounts (old system for Germany and Japan, revised system for the other countries). The figures are somewhat different from those used in national sources, e.g. the U.S. national accounts figure used elsewhere in this report is $1,294.92 for 1973.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, estimates supplied by OECD Secretariat.

Table 8.14.–Public current expenditure on public higher education: Selected countries and selected years

Country	Year[1]	Enrollment in public education (millions)	Public expenditure on public higher education (billions of dollars)	Expenditure per pupil enrolled (dollars)	GNP (billions of dollars)	Percent of GNP spent on public higher education	Factors affecting relative size of percent of GNP spent on public higher education		
							Percent of total population aged 19 to 24	Enrollment in public higher education ÷ by 19-24 year old population	Ratio of Government expenditure per pupil to GNP per capita
Canada	1971	0.66	$1.84	$2,788	$ 94.16	2.0	10.6	28.9	0.653
France	1970	0.78	[2]0.52	667	141.64	0.4	9.8	15.8	0.258
Germany (F.R.) .	1970	0.47	[2]1.34	2,851	187.99	0.7	7.8	10.1	0.889
Japan	1971	0.41	[2]0.52	1,268	236,13	0.2	12.4	3.1	0.589
Netherlands	1971	[3]0.17	[2]0.55	3,235	37.13	1.5	10.7	[3]12.1	1.149
Norway	1972	0.05	[2]0.10	2,000	14.59	0.7	9.4	14.6	0.523
Sweden	1972	[4]0.14	[2]0.36	2,591	43.83	0.8	9.0	19.3	0.461
United Kindom ..	1970	0.43	[2]0.93	2,163	125.03	0.7	9.2	8.4	0.906
United States ...	1973	6.35	20.00	3,150	[5]1,357.95	1.5	10.6	28.4	0.498

[1] Data for students and population were adjusted to a fiscal year basis.

2The figures are adjusted to exclude expenditures on boarding and catering, transport, medical care and welfare and financial aid to students. The figures exclude public expenditure on private education.

[3] Includes pupils in both the public and private sector and public expenditure on both public and private education.

[4] Estimates.

[5] The GNP figures are adjusted to a fiscal year basis and also to conform to the OECD/United Nations standardized system of national accounts (old system for Germany and Japan, revised system for the other countries). The figures are somewhat different from those used in national sources, e.g. the U.S. national accounts figure used elsewhere in this report is 1,294.92 for 1973.

NOTE.–See Technical Note A.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, estimates supplied by OECD Secretariat.

IV

Technical Notes

A. Comparative Foreign Statistics

The international tables were prepared for this publication by the Organization for Economic Cooperation and Development in Paris, France. This 25-country intergovernmental organization has established a standardized system for classification of education systems by level in order to facilitate international comparison. The statistics presented below have been derived from national sources by the OECD Secretariat and reclassified where necessary to conform to the OECD classification. Some of these statistical series can also be found in *Educational Statistics Yearbook*, vol. I, 1974, and vol. II, 1975, published by the OECD, but in most cases they have been further updated.

The OECD standardized classification is described in detail in the nine-volume *Classification of Educational Systems*, OECD, Paris, 1972-75, which describes and classifies in detail the education systems of the 25 Member countries and in synoptic form in the *Summary Volume*, OECD, Paris, 1975.

Definitions

> *Primary education*–Those years of compulsory study during which no differentiation is introduced either in the form of optional subjects or in the streaming of pupils toward different types of institutions or education. In countries in which there is a lower and an upper primary cycle, only the first can truly be considered primary since, once they have completed it, pupils may be streamed either toward the upper cycle or toward another type of education. The length of the primary phase as defined by OECD is usually 6 years.
>
> *Secondary education*–The years of study which follow primary education as defined above. It consists of three types: the terminal phase of compulsory schooling, education which prepares pupils directly for an occupation or trade, and that which prepares them for entry to higher education.
>
> *Higher education*–Those years of study which require, as a minimum condition of admission, the successful completion of secondary education, or evidence of the attainment of an equivalent level of knowledge (e.g. at university, teacher college, higher progessional school).

Thus, in the United States, the first 6 years of public education usually are classified as primary; the next 6 years, as secondary; and all college and university education, as higher.

International Achievement Tests

Nature of tests–A full content analysis of existing curricula was undertaken in each country and the international tests reflect those. The mathematics and science tests allow sub-scores to be presented both in terms of subject areas (e.g., arithmetic, algebra, geometry, and trigonometry and, in physics, biology, chemistry, and practical science) and cognitive levels (e.g., knowledge, understanding, application, etc.). A few items are open-ended, but most involve multiple choice.

The reading comprehension and literature tests are multiple-choice items of comprehension of and inference from prose passages.

All reliabilities of total test scores were in the region of 0.8-0.9.

Sampling procedures–Three- or two-stage random probability samples were drawn for each population in each country. Typically, a random sample of schools was drawn and within schools a random sub-sample of the pupils in the target population. In all cases the standard errors of sampling were small, and hence the samples reflect the target populations accurately.

Testing procedures–Typically, the testing took place on two half days which were the same for the whole country. In some cases teachers were the test administrators and, in other cases, special testers were sent out to the schools by the research center responsible for the test and administration.

In most cases students recorded their responses on mark-sensor cards, but in some cases they recorded answers directly in test booklets, to be subsequently recorded on punched cards.

Sources used in constructing tables on International Achievement Tests

N. T. Postlethwaite *A Resume of the Surveys of the International Association for the Evaluation of Educational Achievement (I.E.A.)*, OECD, Paris, January 1974.

T. Husen (ed.) *International Study of Achievement in Mathematics*, vol. I and II, Stockholm, Almquist and Wiksell, 1967.

L. C. Combe and J. P. Keeves *International Studies in Evaluation I: Science Education in Nineteen Countries, an Empirical Study*, Stockholm, Almquist and Wiksell, 1973.

R. L. Thorndike *International Studies in Evaluation III: Reading Comprehension Education in Fifteen Countries, an Empirical Study*, Stockholm, Almquist and Wiksell, 1973.

A. C. Purves *International Studies Evaluation II: Literature Education in Ten Countries, an Empirical Study*, Stockholm, Almquist and Wiksell, 1973.

G. F. Peaker, *International Studies in Evaluation VIII: an Empirical Study of Education in Twenty-One Countries, a Technical Report*, Stockholm, Almquist and Wiksell.

Sources Used in Constructing Tables on Expenditures for Education

Canada:	*Questionnaire on Statistics of Educational Finance and Expenditure, 1971*. UNESCO/OECD.
France:	L. Levy-Garboua, *Educational Expenditure in France*, OECD, Paris, forthcoming.
Germany:	*Finanzen und Steuern*, Reihe 5, *Ausgeben der offentlichen Haushalte für Bildung, Wissenschaft und Kultur*, 1970 and 1971.
Japan:	*Japan Statistical Yearbook*, 1972-1973 *Education in 1968/70*, 1971 *Educational Statistics, 1974*
Netherlands:	*Questionnaire on Statistics of Educational Finance and Expenditure, 1971*, UNESCO/OECD Unpublished data from Netherlands Central Bureau of Statistics
Norway:	*Questionnaire on Statistics of Educational Finance and Expenditure, 1972*, UNESCO/OECD
Sweden:	*Questionnaire on Statistics of Educational Finance and Expenditure, 1972*, UNESCO/OECD Unpublished information obtained from the Central Bureau of Statistics
United Kingdom:	S. Newman and A. Peacock, *Educational Expenditure in the United Kingdom*, OECD, Paris, forthcoming
United States:	*Digest of Educational Statistics*, 1974, U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, p. 23

Gross National Product data used in these tables were derived from *National Accounts of OECD Countries*, 1962-1973, vol. I and II, OECD, Paris, 1975.

Sources Used in Constructing Tables on Enrollment and Teachers

The national sources used are listed below. Detailed notes on OECD adjustments can be found in "Sources and Methodology" appended to the data for each country in *Educational Statistics Yearbook*, vol. II, OECD, Paris, 1975.

Canada:	*Education in Canada*, 1973
	Vocational and Technical Training, 1970-71
France:	*Tableaux de l'Education nationale*, 1972
	Statistiques des enseignements, 1970-71, fasc. 1 and 2
Germany (F.R.)	*Bevölkerung und Kultur*, Reihe 10, Bildungswesen
	I: *Allgemeinbildende Schulen*, 1970
	II: *Berufsbildende Schulen*, 1970
	III: *Ingenieurschulen, Technikerschulen und Technikerlehrgang*, 1970
	V: *Hochschulen*, 1970
Italy:	*Annuario Statistico dell'Istruzione Italiana*, vol. XXIV, 1972
Japan:	*Education in 1968-70*
	Educational Statistics, 1974
	Japan Statistical Yearbook, 1971
Norway:	*Undervisnings Statistikk, Primary and Continuation Schools*, 1 OK 70
	Undervisnings Statistikk, Secondary Schools, 1 OK 70
	Undervisnings Statistikk, Vocational Schools, 1 OK 70
	Statistisk, Arbok, 1973
Netherlands:	Unpublished information provided by the Netherlands Central Bureau of Statistics, Department for Statistics of Education
United Kingdom:	*Statistics of Education*, 1971, vol. I, 1970, vol. 3, 4, 6
	Scottish Educational Statistics, 1971
	Education Statistics, N.12, 13, 1970 (North Ireland)
United States:	*Digest of Educational Statistics*, 1971
	N.C.E.S.–Projections of Educational Statistics to 1980-81
	School Enrollment, October 1970, Current Population Reports, series P.20, N.222
	Undergraduate Enrollment in Two-Year and Four-Year Colleges, October 1970: Current Population Reports, series P.20, N.231

Notes on Estimates of Public Educational Expenditure (Table 8.12-8.14)

These tables refer only to current expenditures. They exclude capital expenditures (e.g., construction of new schools) because the pattern of capital spending is erratic and figures for a single year may be quite misleading if the purpose is to compare the educational effort of different countries. Public spending on private education is also excluded (except in The Netherlands, where it is the dominant form of public expenditure) because its incidence varies so much from country to country. Public expenditure on ancillary items–i.e., boarding, catering, and transport for pupils; medical and welfare facilities; and grants and loans to students–are excluded because these too vary a good deal from country to country. Debt service expenditures are also excluded in all cases. The figures in tables 8.12-8.14 therefore represent direct current public expenditures on educational services provided in public educational institutions, and have been made as comparable as possible with currently available data. They still should be used with caution for purposes of international comparison, but they are considered robust enough to justify the conclusions drawn in the text.

Table A.1 shows the adjustments made to the national figures to arrive at the estimates of table 8.12. Thus table A.1 makes it possible to reconcile the concept of public education spending use here

Table A.1.–Reconciliation between figures used in Table 8.12 and conventional figures on public expenditures for education

Country	Fiscal year beginning in year cited	Current public expenditures on public education[1] ($ billion)	Current public expenditures on private education ($ billion)	Current public expenditures on ancillary items[2] ($ billion)	Public capital expenditures on public education ($ billion)	Public capital expenditures on private education ($ billion)	Conventional total of public expenditures on education[3] ($ billion)
1	2	3	4	5	6	7	8
Canada	1971	5.90	0.01	0.39	0.67	0.00	6.97
France	1970	4.20	.36	.70	1.03	.00	6.29
Germany (F.R.)	1970	5.03	.18	.26	1.77	.02	7.26
Japan	1971	6.89	.00	.39	2.63	.00	9.91
Netherlands	1971	.76	1.58	.08	.17	.11	2.70
Norway	1972	.74	.02	.07	.18	.00	1.01
Sweden	1972	2.17	.01	.54	.30	.00	3.02
United Kingdom	1970	4.25	.10	1.59	.97	.01	6.92
United States	1973	69.40	(4)	(4)	8.20	(5)	77.60

[1] These are the figures used in table 8.12 with the exception of the Netherlands, where the sum of columns 3 and 4 is used.

[2] This represents spending on boarding, catering, and transport of pupils; medical and welfare services; and student grants and loans.

[3] This column is the total of columns 3-7.

[4] Not possible to separate from column 3.

[5] Not possible to separate from column 6.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, estimates supplied by the OECD Secretariat.

and the cruder measures which are often used for purposes of international comparison. Table A.1 shows the breakdown of total public expenditures between the two levels of education shown in tables 8.13 and 8.14, together with a residual item of expenditures which either could not be broken down by level or which refers to other levels such as preprimary, special, and adult education.

For further OECD information, inquiries may be addressed to OECD Publications Center, Suite 1207, 1750 Pennsylvania Ave. N.W., Washington, D.C., 20006, (202) 298-8755, or see *Educational Statistics Yearbook*, vol. I, Organization for Economic Cooperation and Development, 1974.

Table A.2.–Breakdown of current public expenditures for public education

($ billion)

	Total	Primary and secondary	Higher	Other[1]
Canada			1.84	0.06
France	4.20	3.21	0.52	0.47
Germany (F.R.)	5.03	3.51	1.34	0.18
Japan	6.89	5.25	0.52	1.12
Netherlands	[2]2.34	1.42	0.55	0.37
Norway	0.74	0.59	0.10	0.05
Sweden	2.17	1.41	0.36	0.40
United Kingdom	4.25	3.05	0.93	0.27
United States	69.40	49.40	20.00	0.00

[1] This column reflects current public expenditures on public education not allocable by level, plus expenditures on preprimary and special education and, in some cases, part of the expenditures for adult education.

[2] Public expenditures for public and private education.

SOURCE: Organization for Economic Cooperation and Development, Paris, France, estimates supplied by the OECD Secretariat.

B. Consolidated Program Information Report

The Consolidated Program Information Report (CPIR), by incorporating the statistical reporting requirements of various Federal programs into a single survey format, provided a coordinated view of the effect of Federal aid to education, especially on target pupil populations, in local education agencies. The CPIR was an annual survey from 1968 through the 1972-73 school year.

Weighted national estimates of pupil participation, staffing, and expenditures for the 1972-73 school year were obtained from a stratified random sample of local education agencies (LEA's) with enrollments of 300 or more pupils. Of the 1,016 LEA's selected as the sample, 942 responded to the survey and imputations using peer districts were made for the 74 nonrespondents. Besides the national sample estimates, certainty (non-sample) data were collected on five specific programs administered by the U.S. Office of Education–ESEA Title I Migrant, ESEA Title III, ESEA Title VII, ESEA Title VIII, and the Follow Through Program.

Definitions

Pupil population groups, used in the 1973 CPIR, were defined as follows:

Children from low income areas–All children in ESEA Title I eligible schools, whether or not from low-income families.

Handicapped children–Children with mental or physical handicaps, who require special education and related services.

Children from limited or non-English speaking environments–Children between the ages of 3 and 18 years who come from homes or communities where the dominant language is not English.

Children of migratory workers–Children of migratory agricultural workers who have moved with their families from one school district to another during the past year in order that a parent or other member of their immediate families might secure employment in agriculture or in related food processing activities.

Neglected and delinquent children–Children residing in a local institution for the neglected and delinquent.

(a) Institution for delinquent children–a public or private nonprifit residential facility which is operated primarily for the care of, for an indefinite period of time or for a period of time other than one of short duration, children and/or youth who have been adjudicated to be delinquent.

(b) Institution for neglected children–a public or private nonprofit residential facility (other than a foster home) which is operated primarily for the care of, for an indefinite period of time, at least 10 children and/or youth who have been committed to the institution, or voluntarily placed in the institution, and for whom the institution has assumed or been granted custodial responsibility pursuant to applicable State law, because of the abandonment or neglect by, or death of, parents or persons acting in the place of parents.

Dropout, potential dropout, and former dropout

(a) Dropout–an individual who was in membership during a regular school term and who withdrew from membership, for any reason except death, before graduating from secondary school (grade 12) or before completing an equivalent program of studies.

(b) Potential dropout–a currently enrolled pupil who, in the judgment of school personnel, is likely to become a dropout (see definition above).

(c) Former dropout–a pupil who has returned to school after dropping out; that is, a pupil who was in membership in an elementary or secondary school, who withdrew from that school by dropping out, and who later returned to school and is now in membership in a regular elementary or secondary school program (not an adult school program).

Adults

(a) Adults (A.B.E.)—As used in this survey, adults receiving instruction in an adult school program (not a regular elementary or secondary school program) at the elementary instructional level, given to enable adult or young persons beyond the age of compulsory school attendance to raise their level of education, pursue a program of occupational training, or function more adequately as a citizen in a democratic society.

(b) Adults (other)—As used in this survey, adults receiving instruction in an adult school program (not a regular elementary or secondary school program) which is at a level above the elementary instructional level and which is designed to meet the unique needs of adults and youth, beyond the age of compulsory school attendance, who ohave either completed or interrupted their formal education.

General elementary/secondary population—School-age children who cannot be categorized by any of the other pupil population groups defined above. The general elementary/secondary population is that segment the needs of which can be met through regular school programs and services as distinguished from those needing special services and/or institution.

Duplicated–unduplicated counts—In order to determine the relative participation within a single pupil population and across several pupil populations, the CPIR requested respondents to make use of both duplicated and unduplicated counts. In the case of duplicated-count responses, the LEA's were asked to report children in as many pupil populations as necessary to define all of their characteristics; e.g., children who were from a low income area and handicapped would be counted twice. In the case of unduplicated-count responses, the LEA's were asked to report children in only one pupil population according to the most significant treatment they received through a Federal program.

Analysis of the Data

Estimates for the CPIR were obtained from the administrative offices of the local education agencies and are subject to certain limitations due to the nature of this data source. Data for nonpublic schools are somewhat less accurate than for public schools. Also estimates by specific pupil populations

Table B.1.—Approximate relative sampling errors versus the size of an estimate for participants or staff and for expenditures, 1973 CPIR

Participants or staff		Expenditures	
Estimated number of participants or staff	Relative sampling error (percent)	Estimated expenditures ($)	Relative sampling error (percent)
1,000	25	1,000,000	23
2,000	21	2,000,000	20
5,000	16	5,000,000	14
10,000	14	10,000,000	12
20,000	12	20,000,000	9
50,000	10	50,000,000	7
100,000	8	100,000,000	6
200,000	7	200,000,000	4
500,000	5	500,000,000	3
1,000,000	4	1,000,000,000	2
2,000,000	3	2,000,000,000	2
5,000,000	2	5,000,000,000	1
10,000,000	1	10,000,000,000	1

For further information, inquiries should be addressed to Survey Design and Implementation Branch, National Center for Education Statistics, 400 Maryland Ave. S.W., Washington, D.C., 20202, (202) 245-7791.

appear to be somewhat underreported due to the difficulty of obtaining such data. In some cases, where programs were funded from multiple sources, Federal support could not always be identified.

In addition the above, all estimates based on the national sample are subject to sampling error. In general, the relative sampling errors decreased as the absolute magnitude of the estimate increased and differed for estimates of participants and staff and of expenditures. Relative sampling errors for the 1973-74 CPIR are approximated in Table B.1, below.

C. General Social Survey

Since 1972, the General Social Survey has been administered by the National Opinion Research Center (NORC). NORC is a nonprofit social research center affiliated with the University of Chicago. It was established in 1941 to conduct survey research on topics of public interest and to make contributions to general social science knowledge. The General Social Survey collects data on trends and constants in social characteristics and opinions of the adult population of the continental United States. Each year, approximately 1,500 adults, selected from the entire noninstitutionalized population 18 years or older through a modified probability design, are interviewed using a standard questionnaire containing items of general interest to social scientists and social indicator researchers. Item replication has been used every year or every other year in order to facilitate time-trend studies. In the selection of base line items for the survey, some 150 sociologists and social scientists reviewed and suggest revisions to the draft questionnaire and expressed their question preference by vote.

The sampling design for 1972-74 was a multistage, area probability sample to the block or segment level, using Standard Metropolitan Statistical Areas or nonmetropolitan counties as primary sampling units. At the block level, quota sampling was used with quotas based on sex, age, and employment status. The biases which might have resulted from this design are considered to be small relative to the precision of the measuring instrument. In 1975, only half of the sample was based on block quota sampling and the other half was a full, multistage, probability sample of clusters of households. The 1975 design is considered transitional until all base line items have appeared in the survey.

For further information, inquiries should be made to:

National Opinion Research Center
University of Chicago
6030 South Ellis Avenue
Chicago, Illinois 60637

Telephone No. (312) 753-1300

D. National Assessment of Educational Progress

To measure the Nation's educational progress, National Assessment of Educational Progress (NAEP) estimates, from the weighted sample of respondents, the percentages of those who would be able to answer a question acceptably or to perform a task. The exercises are administered to scientifically selected samples of four age groups: 9-year-olds, 13-year-olds, 17-year-olds, and young adults aged 26-35. The assessment group of 17-year-olds includes a sample of 17-year-olds not enrolled in school. Results are reported for each age level and by region, sex, racial group, parental education, and size and type of community.

Definitions of National Assessment Groups

Geographic region—NAEP's regional divisions are the same as used by the Bureau of Economic Analysis, U.S. Department of Commerce.

Northeast

Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Southeast

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

Central

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

West

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oklahoma
Oregon
Texas
Utah
Washington

Sex–Males and females.

Race–Blacks and Whites; in some instances, results for other racial groups are also reported.

Parental education–Highest level of education attained by either parent: no high school, some high school, graduated from high school, and post-high school.

Size and type of community–Community types are identified both by the size of the community and by the type of employment of the majority of people in the community.

High metro–Areas in or around cities with a population greater than 200,000 where a high proportion of the residents are in professional or managerial positions.

Low metro–Areas in or around cities with a population greater than 200,000 where a high proportion of the residents are on welfare or are not regularly employed.

Main big city–Communities within the city limits of a city with a population over 200,000 and not included in the high- or low-metro groups.

Urban fringe–Communities within the metropolitan area of a city with a population greater than 200,000, outside the city limits and not in the high- or low-metro groups.

Medium city–Cities with populations between 25,000 and 200,000.

Small places–Communities with a population of less than 25,000 and not in the extreme-rural group.

Extreme rural–Areas with a population under 10,000 where most of the residents are farmers or farm workers.

Analysis of the Data

National Assessment uses a weighted percentage of correct responses to describe the performance of a group on an exercise. Each reported percentage correct is an estimate of the percentage of persons in a given population who gave a certain acceptable response to a specific exercise. Either mean or median percentage correct, together with mean or median differences, is used to summarize performance on most exercises.

Some caution must be observed when interpreting the median percentages. Any one median value indicates how well a certain group of young Americans performed on that particular set of exercises. If other exercises had been added to or deleted from that assessment, the median values could be different. However, comparison of group median percentages can be made when the groups took the same set of exercises (e.g., male and female performance on theme 2 in social studies). Some interpretations are not meaningful; the performance of 9-year-olds and 13-year-olds on computation exercises cannot be compared unless identical exercises were given to both age groups. In other NAEP reports, special analyses look at only those exercises which were given to more than one age level. These overlapping exercises are then used to compare performance from age to age.

The median difference from the national percentage is calculated by finding, for each exercise, the difference between a group's performance and the national performance on a certain set of exercises. A group's median difference indicates the average relative performance of that group on that set of exercises.

Scores on essays, reported as part of the assessment of writing, were calculated holistically–reflecting a reader's response to a *whole* essay rather than to such aspects of it as style, content, mechanics, and so on. Readers, all of them experienced English teachers, were trained in the usual fashion by rating training papers–i.e., papers exemplifying each score point from 1 (the lowest quality score) to 8—until they had internalized the scoring system. Then each read an essay and gave it a score from 1 to 8.

The nature of holistic scoring is such that one never knows precisely why a paper received the rating it did; the scorers themselves do not reflect on their decisions, only knowing that a particular paper is better than some but not as good as others. Consequently, this method of scoring provides a very reliable ranking of essays—a ranking most trained readers would endorse—but it tells us nothing about the papers except that some are better than others.

For more information on National Assessment, including its goals and methodology, see National Assessment of Educational Progress, report 03/04-GY, *General Information Yearbook* (Washington, D.C.: Government Printing Office, 1974).

E. National Longitudinal Study of Educational Effects

The National Longitudinal Study (NLS) of the High School Class of 1972 is now entering its fourth year. The NLS periodically queries a national sample of members of the high school class of 1972 to chart individual educational, vocational, and personal development. The study is sponsored by the National Center for Education Statistics with support from various elements of the Department of Health, Education, and Welfare that have interests in the long-term effects of educational policies and programs. The base-line survey of class of 1972 seniors took place in spring 1972. The first two followup surveys were conducted in fall 1973 and fall 1974. Data collection for the third followup of these young adults will commence in the fall of 1976. The schedule of subsequent followups is only tentative at the present time.

The study will (1) supply the educational community with facts on the flow of young adults through the postsecondary educational-occupational system, (2) facilitate identification of major branching or decision points that affect educational and life patterns in the immediate postsecondary period, and (3) permit tracing of linkages or path choices, estimates of the associated transition probabilities, and conclusions about the relative importance of the factors which determine these transition probabilities. These results should improve the educational system by making it more responsive to students and their needs.

Survey data-collection instruments and procedures were designed during the 1970-71 school year and tested on a small sample of seniors in spring 1971. In spring 1972, the full-scale study was initiated. Over 1,000 public and nonpublic schools and almost 18,000 seniors participated in the base-year survey. In fall 1973 and again in fall 1974 attempts were made to contact these same individuals as well as persons from sampled schools that did not participate in the base-year survey. Follow-up information was gathered about their activities since leaving high school and their current plans regarding education, training, and jobs. From time to time in the future, additional information will be sought from these young adults.

Sample Design

The sample design may be described as a deeply stratified two-stage probability sample with schools as first-stage sampling units and students as second-stage units. The population consisted of all 12th-graders enrolled during 1972 in all public and private schools in the 50 States and the District of Columbia. The first-stage sampling frame was constructed from computerized school files maintained by the Office of Education and by the National Catholic Education Association.

The school sampling frame was divided into 600 final strata based on the following variables:

- Type of control (public or nonpublic)
- Geographic region (Northeast, North Central, South, and West)
- Grade-12 enrollment (less than 300, 300 to 599, and 600 or more)
- Proximity to institutions of higher learning (3 categories)

- Percent minority group enrollment (8 categories, public schools only)
- Income level of the community (11 categories, public schools; 8 categories, Catholic schools)
- Degree of urbanization (10 categories)

The number of classes defined by a cross-tabulation of the above stratification variables is far greater than the number of classes that could in fact be utilized in the stratification. As a consequence, it was necessary to consolidate or ignore, in some instances, some of the stratification criteria through a procedure for assigning priority to the variables. The final strata involved these priority considerations, but also involved judgment in consolidating the various classes to produce strata of the desired sizes.

To increase the numbers of disadvantaged students in the sample, schools located in low-income areas and schools with high proportions of minority group enrollments were sampled at approximately twice the sampling rate used for the remaining schools. Schools in the smallest grade-12 enrollment strata (fewer than 300 seniors) were selected with probabilities proportional to their estimated numbers of senior students and without replacement. Schools in the remaining strata were selected with equal probabilities without replacement. Within each final stratum, four schools were selected initially and then two of the four were randomly selected and designated as the primary selections. The other two schools were retained as backup or substitutes, used in the sample only if one or both of the primary schools did not cooperate. Samples of 18 students per school were selected and 5 additional students were selected as alternates. The students were sampled with equal probabilities without replacement, within schools.

The study excluded schools for physically or mentally handicapped students, schools for legally confined students, and schools (such as area vocational schools) where students were also enrolled in other institutions included in the sampling frame. The study design also excluded certain categories of students, such as early graduates and adult education students.

Response Rates

Twenty-one of the primary sample of 1,200 schools were not eligible for participation for various reasons. Of the remaining 1,179 primary schools, 949 (80.5 percent) took part in the survey. Ninety-five backup schools were substituted for primary schools that could not participate. Thus, a total of 1,044 schools (87 percent of the target number of 1,200) participated. Since data collection took place late in the school year, lack of time to prepare for the survey was the most common reason given by selected schools for declining to participate. Of a targeted maximum of 18, an average of 17 students per participating school took part.

The resulting sample of 17,726 students provided varying response rates for individual data-collection forms. The Student Questionnaire was completed by 16,409 persons (93 percent), and the Student Test Battery was taken by 15,625 (88 percent). The Student Record Information Forms were filled out by survey administrators for all but 33 of the 17,726 students.

In summer 1973, NCES contacted the schools that initially were unable to participate in the study. Nearly all of these "resurvey" schools, plus a small number of "augmentation" schools selected to represent schools not included in the sampling frame, provided names and addresses for random samples of 18 of their class of 1972 seniors. The substantial majority of these persons participated in the first followup survey and at that time also completed a short version of the base-year Student Questionnaire.

Largely as a result of this resurvey effort, a total of 21,350 persons completed a First Followup Questionnaire in fall of 1973. This figure includes 15,635 (95.3 percent) of the 16,409 persons who responded to the Base-Year Student Questionnaire.

The Second Followup Survey, which took place in fall 1974, obtained responses from about 93 percent of all persons to whom the forms were mailed.

For additional information concerning the National Longitudinal Study, see Statistical Analyses Branch, National Center for Education Statistics, 400 Maryland Ave., S.W., Washington, D.C., 20202, (202)-245-8765.

V

Program and Plans of the National Center for Education Statistics for Fiscal Years 1976 and 1977

The National Center for Education Statistics (NCES) plays an important facilitating role in the development of educational policy. It provides information for planning, program development, and administration for Federal, State, local, and institutional decisionmakers. It also provides educational data to the general public, to researchers, and to industry. As the primary source of educational statistical data for Federal policymakers, NCES must furnish information that is accurate, useful, and timely.

The authorizing legislation, the Education Amendments of 1974, establishes the National Center for Education Statistics within the Office of the Assistant Secretary for Education, and specifies that NCES shall:

(1) collect, and from time to time, report full and complete statistics on the condition of education in the United States;

(2) conduct and publish reports on specialized analyses of the meaning and significance of such statistics;

(3) assist State and local educational agencies in improving and automating their statistical and data-collection activities; and

(4) review and report on educational activities in foreign countries.

In addition, the legislation requires a number of one-time studies and surveys to meet immediate needs for information to support policy determination.

To ensure optimal implementation of the four mandated functions, NCES during the past year has adapted its plans and programs as rapidly as possible, while maintaining continuity with previous efforts and responding to the continuing requirement to provide information useful for policy purposes.

This section describes the plans and programs of NCES for fiscal years 1976 and 1977 in relation to the statutory functions, and mandated studies mentioned above.

General and policy responses are presented first. Then, major facets of the program are presented according to the mandated functions to which they most closely relate. The individual mandated studies are described next. Finally, a brief cost by program area is given.

NCES Policies, Procedures, and Processes

NCES is statutorily established by the Education Amendments of 1974, Public Law 93-380, Section 501. In addition to the specific programmatic efforts developed to meet the four broad mandates, a variety of activities assist the efforts of NCES to meet its legislated mission. Some of these activities are described below:

Planning—NCES' planning activities, directed by a newly established Planning Office, are designed to develop a program of statistics useful to education decisionmakers and meeting the requirements of timeliness and of established technical standards. Designed to induce user feedback on the usefulness of current data-collection and to elicit future data needs, the NCES statistical program includes substantive, technical, and milestone reviews to assure quality, timeliness, and input for program improvement.

The Planning Office simultaneously coordinates activities affecting the statistical program for four fiscal years. Work for the current year is being implemented, plans for the coming year are being finalized, forward plans are being formulated for a third year, and long-range plans are proposed and considered for a fourth year.

An important role in planning NCES' activities is played by the Advisory Council on Education Statistics. The authorizing legislation directed the establishment of an Advisory Council to provide advice and counsel to the Center. The charter for the Advisory Council states that its function shall be to "advise the Secretary of Health, Education, and Welfare and the Assistant Secretary for Education and review general policies for the operation of the Center and shall be responsible for establishing standards to insure that statistics and analysis disseminated by the Center are of high quality and are not subject to political influence."

The Council, which is required to meet at least four times during each calendar year, met for the first time on November 11-12, 1975.

Coordination—A senior member of the NCES staff serves as executive director of the Education Data Acquisition Council (EDAC). This agency was recently established by the Assistant Secretary for Education for the purpose of ensuring that all data-collection activities within the Education Division (NCES, OE, NIE) are properly justified and coordinated. The objective is to minimize duplication of activities and also to minimize the burden placed on responding educational organizations. EDAC prepares the Annual Data Acquisition Plan for the Education Division. No data acquisition may be undertaken unless it is in the plan.

Capabilities for Rapid Data Collection and Early Release—In addition to pursuing its program of data collection and reporting through surveys and studies, NCES has instituted a program of rapid collection and early release of some data, with proper identification and cautions, at various stages of the editing process. In addition, to shorten the time between collection and reporting, data are increasingly being made available on computer tape.

Another effort, the development of a Fast Response Survey System, will provide a statistically sound system for producing nationally representative data, limited in scope, in approximately 3 months. The system will respond to urgent, ad hoc requests for data needed for legislative, budgetary, planning, and policymaking decisions, when such data are not available in existing files or publications. Limited numbers of respondents will be used to represent the following major educational sectors: institutions of higher education, elementary and secondary schools (both public and private), local and State education agencies, and noncollegiate postsecondary schools. The system, now being designed, will be completed during the current fiscal year.

Analysis—Broadened analytical activities have included establishment of a task force on analysis, consideration of analytical activities in connection with the program of studies and surveys, provision for analytic capabilities in NCES personnel planning and acquisition, and establishment of a program of analytical studies.

Dissemination–NCES promotes the accessibility of the data it collects through several avenues. Its reference service responds to over 12,000 queries per year from legislators, government agencies, private organizations, educational institutions, and the general public. This service also prepares annual reports of general statistics about American education, such as the *Digest of Educational Statistics* and *Projections of Educational Statistics*.

The remote-access educational data base system (EDSTAT), established in fiscal year 1974, has been improved and expanded. The system may now be interrogated, on-line, from remote-access terminals in many parts of the country (access is now available to more than 30 data bases). In addition, off-line tapes and reports are obtainable through the system for most NCES surveys and studies.

Further expansion and improvement of this system are planned for the coming year.

Summary–During the past year, initiatives undertaken previously by NCES have been expanded and extended, and new policies and procedures have been introduced to provide a strengthened capability to collect and disseminate educational statistics. The results of these procedures and policies are reflected in the NCES programs developed to meet the requirements of the law. These are described in the following sections.

Data Collection and Reporting

The first mandate in the Education Amendments of 1974 requires that NCES "collect, and from time to time, report full and complete statistics on the condition of education in the United States." To describe fully the condition of education at all levels would require a massive data collection program probably beyond the ability of any one organization. Through statistical planning and coordination, NCES collects data and reports on as many facets of American education as possible, consistent with its personnel and budget resources. To supply these data, chiefly a function of State and local education agencies, it has become necessary to make much more efficient the whole system of Federal-State-local cooperative data collection.

NCES' Common Core of Data Program has undertaken development of a common set of reporting requirements at the elementary/secondary level which is now ready for field testing. (A similar development for postsecondary education is planned.) Through the Elementary/Secondary Data Core, NCES expects to increase the size and utility of its data base, with little or no increase in the total respondent burden.

In addition to activities in the elementary/secondary area, NCES collects data in the postsecondary area, and in several special problem areas, including: financing of public schools, education personnel, libraries, and assessment of student achievement.

On the following pages, NCES' program of activities in accordance with mandate I is described under the following headings:

Trends in Elementary/Secondary Education
Changing Nature of Postsecondary Education
Financing of Public Schools
Educational Personnel
Library General Information Surveys
National Assessment of Educational Progress

Trends in Elementary/Secondary Education

For two decades, the goals of equal educational opportunity and of financial equity in elementary-secondary education have dominated public attention. The derivative needs for identifying the numbers of bilingual and handicapped children requiring specialized services have generated Congressional mandates.

Through time-series data collection (ELSEGIS), NCES provides basic data used to estimate allocations to the States in Federal formulae. These data which are comparable State by State are essential to analyzing equal educational opportunity and financial equity questions. They also provide the basic information for viewing such policy concerns as the impact of declining enrollments on revenues, expenditures, staff, and facilities. NCES is also exploring the feasibility of a study to assess the educational needs and status of school-age children.

NCES' work in the elementary/secondary field is described under the following headings:

Elementary and Secondary General Information System (ELSEGIS)
Elementary/Secondary Data Core
Census of Nonpublic Elementary and Secondary Schools
Preprimary Enrollments of Children Under Six
Design Study of Children's Needs
Survey of Handicapped Children

Additional studies are presented in the **Financing Public Schools** which follows.

Elementary and Secondary General Information System (ELSEGIS)

ELSEGIS, initiated in 1969 and conducted annually, is the primary instrument for acquisition and dissemination of basic data on public elementary and secondary education in the United States and outlying areas. ELSEGIS acquires quantitative data on characteristics, pupils, staff, finances, and facilities in public elementary and secondary education. In most cases, data are obtained through cost-sharing contracts with State education agencies that carry out data acquisition, editing, and preparation. Most data are obtained from the State agencies, but in some States (at State option) data are collected directly from the school systems and schools. Statistics collected by the Bureau of the Census and the Equal Employment Opportunity Commission are also used in the ELSEGIS data base.

Activities for FY 1976–Data on number of school districts, schools, pupils, and staff employed during the 1975-76 school-year are being collected. The following reports are being issued:

Statistics of Public Elementary and Secondary Day Schools, Fall 1975
Education Directory: Public School Systems, 1975-76

Plans for FY 1977–Similar data will be collected for the 1976-77 school year and will result in the following publications:

Statistics of Public Elementary and Secondary Day Schools, Fall 1976
Education Directory: Public School Systems, 1976-77
Education Directory State Educational Agencies, 1976-77

Elementary/Secondary Data Core

A census of local school systems, intermediate educational agencies, and State educational agencies is being developed and planned for full-scale implementation for school year 1977-78. The objective of this project, which will replace the present ELSEGIS, is to assemble an extensive base of elementary/secondary data for use by educational administrators, planners, and researchers. Designed to address major policy issues more effectively, the base can most likely obtain most or all of the needed data from State agencies without imposing an additional burden upon local school systems.

Activities For FY 1976–The data base design is being completed and field tested to determine its feasibility and to obtain estimates of the cost of full implementation. The automatic data-processing requirements for developing and managing the data base are also being ascertained.

Plans For FY 1977–Agreements will be negotiated with the State educational agencies to produce data for local, intermediate, and State agencies. Assistance will be provided to State educational agencies to develop efficient systems to extract, compile, and transmit the data needed for the elementary/secondary core.

Census of Nonpublic Elementary and Secondary Schools

Nonpublic schools in the United States, which enroll an estimated 10 percent of the elementary/secondary pupil population, serve a large and important sector of the elementary/secondary educational system about which little is currently known. This census seeks to gather data on the number of children enrolled in nonpublic schools, the number of staff personnel employed, and revenues and expenditures for nonpublic education.

The Council for American Private Education (CAPE) has endorsed the proposed census and has pledged its cooperation. Survey forms will be mailed to every known nonpublic school. A computer tape of the survey data will be made available to users and included in EDSTAT, and a statistical report of survey findings will be published.

Activities for FY 1976–Efforts are being made to identify as many nonpublic schools as possible. CPEA and its constituent organizations are assisting NCES in developing the survey forms and management plans.

Plans for FY 1977–Survey forms will be mailed to the nonpublic schools, data will be tabulated, and a statistical report published.

Preprimary Enrollments of Children Under Six

To conduct this study, NCES has made appropriate arrangements, both technical and financial, for the Bureau of the Census to include specified questions in the October supplement to its Current Population Survey (CPS). The added questions will seek information about the schools attended by members of households surveyed. Of interest to early-childhood-development specialists is data on the numbers of children aged 3 to 6 who are receiving educational services in nursery schools and kindergartens. The CPS data will generate regional and national estimates of children enrolled in preprimary schools, by a number of characteristics such as occupation of head of household and family income. This information, for the period of October 1975, will be published in FY 1976. A similar report for the period of October 1976 will be published in FY 1977.

Design Study of Children's Educational Needs

The purpose of this study is to develop methods and measures for the assessment of the educational needs and status of school-age children. The study will attempt to (1) determine children's characteristics and socioeconomic factors affecting their educational needs and achievement, (2) meet program and legislative needs for regular and recurrent sources of data on the educational needs and problems of the school-age population, and (3) provide the base for a variety of special and supplementary surveys.

It is anticipated that the data for the needs-assessment study will be collected by household interviews of a representative sample of the families with children. The study will provide national estimates of the distribution of a variety of educational problems and conditions within the population of school-age children, and of their effect on/or association with educational difficulties, limitations, and deficits. Consideration will be given to the methods of providing limited State data periodically. Together with data on the services being provided by schools and by other private and government programs, the assessment of interrelated needs of school-age children should be useful to the educational agencies of DHEW, Congress, and other government agencies. Special samples, studies, and supplements may be selected and developed as required for specific policy definition and analysis.

Activities in FY 1976–In FY 1976, three procurements were started: (1) instrument review and development, (2) a supplement to a national survey of children and parents to provide base-line estimates of population characteristics and of the level of agreement between parents and teachers on children's impairments and educational handicaps, and (3) a review and analysis of the Pilot State Child Find programs procedures and methods.

Plans for FY 1977–Further planning efforts will be undertaken in FY 1977 to develop a data plan for the study, to examine the appropriate scope and magnitude of the proposed study, and to determine the feasibility of alternative data-collection strategies. Recommendations on study feasibility, method, and scope will be completed in FY 1977-78.

Survey of Handicapped Children

P.L. 94-142 requires reports to the Congress on the extent to which the special educational needs of handicapped children are or are not being met. The law requires a determination of the number and kind of children requiring but not receiving special educational services through the public school system, children not enrolled in schools, and children in institutions not served or identified by the State educational agencies and the public school systems. The data on handicapped children are also to be available on a State-by-State basis and for each handicapping disability. NCES is reviewing the legislation and program plans to determine the data plans and specifications required by this mandate. In close collaboration with the Office of Education's Bureau of Education for the Handicapped (BEH), State and local educational agency reporting requirements will be developed and incorporated in program regulations. A program of studies will be developed to provide the statistical data and analytical base required for evaluation of the legislated program.

Activities in FY 1976–Extensive planning is being directed toward developing a data-collection system; an implementation manual for record keeping by State and local education agencies, in conjunction with the regulation-writing efforts; and a set of study plans. A review of other NCES studies will be undertaken to coordinate ongoing work with new study plans.

Plans for FY 1977–The second stage of development–implementation of the data-collection requirements–will be started. Results of conferences with State and local education agencies and with special education organizations will be synthesized and reported. Planning and testing projects and contracts will be negotiated. Plans for independent assessment of target groups for special education in private schools and institutions will be developed. In conjunction with the Design Study of Children's Education Needs and the State's Child Find Study groups, planning and instrument development for household assessments of children's special education needs will continue.

THE CHANGING NATURE OF POSTSECONDARY EDUCATION

The role of Federal assistance to individual students and the emergence of State comprehensive planning for postsecondary education–both stemming substantially from the Education Amendments of 1974–call for new kinds of data about the postsecondary experience of American young adults. The financial hardships experienced by colleges and universities and other postsecondary institutions point up the need for more refined measures of financial stress, both the revenue and the expenditure elements. Continuing education is growing in magnitude and diversity, and updating vocational (including professional) skills and knowledge is becoming increasingly an essential role on which our society depends. The NCES program is being adapted (as rapidly as permitted by the necessary leadtime for new kinds of data collections) to the changing nature of postsecondary education.

NCES' work in the postsecondary field is described under the following headings:

Higher Education General Information Survey (HEGIS)
Postsecondary Data Core
National Longitudinal Study of the High School Class of 1972
Non-Collegiate Postsecondary Career Schools
Adult and Continuing Education Statistics

Higher Education General Information Survey (HEGIS)

The Higher Education General Information Survey (HEGIS) systematically collects and disseminates quantitative data on the Nation's colleges and universities, including community and other 2-year colleges. Annual surveys acquire basic information on the numbers of students and selected characteristics of institutions, students, staff, financial structure and operations. Recurring data are also collected on the libraries, the physical facilities, and various educational activities that are not necessarily at a collegiate level. All institutions of higher education in the United States, as defined in the *Education Directory–Colleges and Universities*, are surveyed. The governments in 44 States and in the District of Columbia actively cooperate with NCES in the HEGIS data collection. In the other six States, NCES deals directly with the appropriate institutions.

HEGIS data are used by States, higher education associations, policy-research agencies, and by the institutions themselves for planning, development, and administration. Under HEGIS auspices, an annual invitational conference has been held at which representatives of institutions of higher education, State boards, survey experts, and regional agencies articulate their data needs. In 1976, the scope of this conference will be broadened to include the entire postsecondary community.

Another primary HEGIS function is the standardization of information descriptors; i.e., the formulation of consistent, compatible, and widely accepted categories and definitions of statistical entries in higher education. Taxonomies, manuals, and record systems are created and promulgated with maximum involvement by the States, institutional representatives, and educational associations.

A secondary HEGIS function is the elimination or reduction of duplicative survey activities, both within and outside the Federal government. Thus far, HEGIS is incorporating data needs of the Bureau of the Census, the National Science Foundation, the National Institutes of Health, the Office for Civil Rights, the Bureau of Postsecondary Education, 35 State governments, and several education associations in the non-Federal area.

Activities for FY 1976–All HEGIS surveys are being processed so that no backlog remains. Data-processing procedures have been developed to ensure rapid publication of future surveys.

Early estimates based on samples, releases of unedited but tabulated data, and pre-publication releases are making data available earlier than ever before. The new *Manual for Budgeting and Accounting for Manpower Resources in Postsecondary Education* was completed.

Plans for FY 1977–HEGIS will acquire racial/ethnic data for the first time, incorporating data needs for the Office for Civil Rights. Information will be collected concerning the racial/ethnic background of all college and university enrollees, and of all recipients of degrees (or other completion awards), by major field, and by sex. Also, HEGIS will acquire national statistics on adult/continuing education in colleges and universities.

Postsecondary Data Core (FY 1976)

A project, entitled "The Postsecondary Education Statistics Seminars of 1976", will assemble a recommended Federal data base on postsecondary education. The project will recommend short-term plans for data acquisition in 1977-78, and long-range plans for the establishment and maintenance of the total Federal postsecondary education records system. These plans will include draft survey forms for the 1977-78 surveys, and specifications and descriptions of the appropriate respondent groups–individual, institutional, and governmental.

National Longitudinal Study of the High School Class of 1972

NCES is now in its fourth year of a 6- to 8-year investigation into the education, job training, and vocational histories of a nationally representative sample of 22,000 young people. The longitudinal study provides data on the extent to which career plans and aspirations persist over time and are eventually fulfilled or thwarted; the characteristics and abilities of those choosing various kinds of postsecondary education and occupations; the impact of Federal funds on initial educational plans, on perserverance of intention, and on success; and the extent to which educational experiences have prepared youth for work. This study broadens the output measures available; previously, output measures were largely limited to high school and postsecondary program completions.

The inquiry began in spring 1972 with a base-year survey of the high school class of 1972. A student questionnaire, a test battery of verbal and nonverbal aptitudes, a school questionnaire, a counselor questionnaire, and school records furnished data on a nationally representative panel of seniors from a sample of 1,200 public, private, and parochial secondary schools.

Representatives from educational organizations and the social sciences contributed to the project design, in addition to representatives of many Federal users of such data.

In fall 1973, a followup survey of youth in the 1972 sample obtained information on their post-high school educational and work activities. An excellent return for the resurvey after 18 months with a mobile population was obtained: 93 percent of the sample cooperated with the followup survey. A second followup study was initiated in fall 1974 and obtained a response rate of 93 percent. Some analyses of base-year and first and second followup data have been completed.

Reports and computer tapes based on these data have been prepared for dissemination. The reports address substantive and methodological issues.

Activities for FY 1976–The data base is being subjected to Federal policy-oriented evaluation through five contracts that are analyzing: Access to Postsecondary Education; Student Financial Aid; Transition From High School to Work; Demand for Postsecondary Education; and Effects of Secondary Education on Postsecondary School Careers.

Plans for FY 1977–The third followup is planned for FY 1977, when those of the 1972 cohort who went directly to college and proceeded at normal pace will have graduated and will be working full-time and/or pursuing graduate work.

Special-purpose analyses will be conducted to examine specific policy areas, utilizing data on the class of 1972 through the first 4 years of post-high school experience. These analytic studies are reported in the section on Analysis Activities.

Surveys in Noncollegiate Postsecondary Career Schools

Federal interest in and financial support of vocational education date from the Smigh-Hughes Act of 1916. In recent years this interest has intensified as a result of increasing unemployment rates coupled with a general concern with making education more relevant to the practical demands of our complex society.

In view of the importance of work preparation as a component of education, NCES has conducted a number of studies to obtain information descriptive of vocational training programs. The results from surveys of the vocational schools, both public and private, were first published in the Directory of Postsecondary Schools in 1974. As part of the survey for the directory, data were collected on programs, fees, enrollments, completions, and staffs.

Activities for FY 1976–The second directory, reflecting the status of schools as of 1973-74, is being published together with a study providing national estimates of enrollments by program, sex, race/ethnic group, full-time/part-time status, completions and noncompletions (including those who left with a marketable skill to take a job in the field).

Planning will be completed for a survey of the Characteristics of Students in Noncollegiate Postsecondary Schools to collect data on the socioeconomic characteristics, education, and work experience of participants, as well as their reasons for school and curriculum selection, and plans for the future.

Plans for FY 1977–The third directory will be published and planning will begin for the fourth. National estimates will be published, reflecting the programs and enrollment for 1975-76.

The planned survey of student characteristics will be conducted and the data edited and prepared for tabular presentation.

Adult and Continuing Education Statistics

Adult and continuing education is one of the most rapidly growing areas of American education. Between 1969 and 1972, while population grew 6.3 percent, the number of participants in adult education grew 20.7 percent. Future increased demand can be predicted, based on the increasing size of the adult population and the availability of facilities due to declining elementary-secondary school enrollments. Demands for adult education would have implications for facility utilization, curriculum planning, and teacher/administrator preparation.

The Adult and Continuing Education Statistics Program seeks to provide data on adult education programs and participants. Data are collected on types of institutions, enrollments, staffs, programs, and fees, as well as on characteristics of participants in adult education, the sources they utilize, why they enroll, what they are studying, and the administrative conditions under which they enroll. These data are designed to provide basic and trend data of use to educational planners and a variety of other users.

Information on participants was collected for NCES by the Census Bureau in 1969, 1972, and 1975. The 1969 data on participants have been analyzed and reported by NCES. Information on programs funded by the Adult Education Act of 1966 has been published annually in the Adult Basic Education Report. In 1972, NCES collected and reported data from public elementary/secondary education systems. NCES has also collected data from other major sources of adult education, such as nonprofit community organizations, institutions of higher education, and correspondence schools. These sources provide information on offerings, enrollments, eligibility requirements, fees, and teaching staffs.

Activities for FY 1976–Plans are being developed for surveys of (a) public education systems, (b) colleges and universities, (c) correspondence schools. Plans will also be started for a second survey of community organizations. A report will be published on the 1972 Census Bureau survey of participants in adult education. The annual Adult Basic Education Report will also be published.

Plans for FY 1977–The following surveys will be conducted: Adult Education in Public Education Systems and Adult Education by Correspondence. Information on institutions of higher education will be gathered through HEGIS. Plans will be completed for the second survey of Adult Education in Community Organizations. A report of the 1975 census-based survey will be published as will the Adult Basic Education Report.

FINANCING OF PUBLIC SCHOOLS

Continuing concern is expressed regarding the equitable financing of public schools relative to the needs of target populations, particularly in the light of changing enrollment patterns and the effects of inflation on operating costs. NCES conducts several periodic surveys and occasional one-time studies to obtain information furnishing a reliable data base concerning school finance.

NCES activities in school finance are described under the following headings:

Expenditures for Public Elementary and Secondary Education
Statistics of Local Public School Systems–finances
Bond Sales for Public School Purposes
Update of Census Data by School District

Expenditures for Public Elementary and Secondary Education

This annual survey reports data collected by the States for use in the financial allocation formulas for programs under P.L. 89-10 and P.L. 81-874. State education agencies collect data on a standardized form from all local education agencies, edit and verify them, and compile them into State totals. Covering the preceding fiscal year, they are submitted to NCES around March 15 every year.

Activities for FY 1976–Data for the 1974-75 year are being collected and will be published.

Plans for FY 1977–Data for the 1975-76 year will be collected and published.

Statistics of Local Public School Systems–Finances

This annual sample survey of local school systems provides data on school revenues by type and source, including the distribution of Federal funds by program, and on expenditures by major account category, including current expenditures, capital outlay, and debt service. Data are reported annually for the fiscal year most recently closed and are also included in the EDSTAT system.

Bond Sales for Public School Purposes

This annual report provides information on the status and trends of public elementary and secondary school bond sales and elections, including information on the number and dollar value of bond elections, approvals, and defeats, by State. The data are taken from reports of sales and elections published in the Daily Bond Buyer. Information on the rating of bond issues is obtained from Moody's Investors' Service. Reports are issued annually for the previous year.

Update of Census Data by School District

NCES has developed an updated School District Reference Tape, which will be used to aggregate, at the school district level, social and economic data from the 1970 Census of Population. This updating will reflect the more than 1,000 consolidations and other changes in school district boundaries that have occurred from 1970 to 1974. Statistics made available from this update will improve the allocation and targeting of funds with concomitant benefits for target populations; e.g., data on the number of children below the poverty level will assist ESEA title I managers and State coordinators in subcounty allocations; data on low education attainment will contribute to the Adult Basic Education Program; statistics on occupations and vocational training will support the Career Education Program.

Activities for FY 1976–Revisions of school district maps to reflect the changes in district boundaries that occurred between 1970 and 1974 were incorporated into the School District Reference Tape. Census data were retabulated on the updated tape.

Plans for FY 1977–Retabulated Census data on social and economic characteristics will be entered into the EDSTAT online automated access system. Planning will proceed for providing school district maps for the 1980 Census.

EDUCATIONAL PERSONNEL

The training, work situation, and job market for teachers are all experiencing major changes. The transition from a shortage to a surplus of teachers has necessitated significant policy shifts at the Federal, State, and local levels. Concerted efforts to change the preservice teacher education process have been proceeding under the cloud of pervasive fiscal crisis. Concurrently, inservice teacher education has gained prominence due to the surplus of teachers and the related reduction in teacher turnover as well as the prevailing awareness of the inadequacies of the present system. During the last decade, teachers have become increasingly active in securing guarantees of their rights and specifications of their obligations. This has been manifested in rapid unionization, strikes, and collective negotiations with school boards leading to formal collective bargaining agreements.

Data collection to meet policy needs in teacher supply and demand, teacher education, and teacher collective bargaining represents the focus of the education personnel statistics program. The two studies currently underway which address the supply/demand problem focus on recent college graduates and on the reserve supply of teachers. The teacher education area is addressed by studies on preservice and inservice education. A study of teacher collective bargaining is under development.

NCES' activities in this area include the following projects:

Survey of Recent College Graduates with Emphasis on Additions to the Supply of Teachers
Survey of the Reserve Supply of Teachers and Teacher Turnover
Survey of the Preservice Preparation of Teachers
Study of Inservice Teacher Education
Teacher Collective Bargaining

Survey of Recent College Graduates with Emphasis on Additions to the Supply of Teachers

This is a survey of the employment and education experience of recent college graduates, with special emphasis on additions to the supply of teachers. The study will help assess the job market for recent graduates, including teachers. Data collected concerning teachers will focus on the number of recent graduates added to the teacher supply and the specialty prepared for (special education, vocational education, social sciences, etc.).

Activities for FY 1976–Data collection of 1974-75 graduates is being initiated.

Plans for FY 1977–Analysis of data of 1974-75 graduates will be completed. Development work will begin for a similar survey of 1976-77 graduates.

Survey of the Reserve Supply of Teachers and Teacher Turnover

A largely unexplored factor in assessment of teacher supply is the reserve pool. A national sample of qualified teachers who have taught but are no longer teaching or have never taught will be interviewed to measure the likelihood of reentry into the teaching job market. Data will be collected also on aspects of teacher turnover; e.g., the number of teachers leaving inner-city schools for suburban schools, and the frequency of and reasons for job changes. Particular attention will be given to teachers leaving the profession, a major factor in assessing teacher demand.

Activities for FY 1976–Development work will be carried out for a national survey. It is planned to conduct this survey as a supplement to an existing national household survey.

Plans for FY 1977–Data collection and analysis will be carried out.

Survey of the Preservice Preparation of Teachers

Data are being collected from a national sample of faculty, students, and administrators in teaching training institutions to provide comprehensive information on all aspects of undergraduate teacher preparation. The study will examine the future teacher supply, by specialty; the characteristics of students, faculty, and administrators in these programs; the content and structure of teacher preparation, with emphasis on innovative programs; the cost of these programs; and the organizational structure and decisionmaking processes in teacher-training institutions. A user-needs study of approximately 100 policymakers laid the foundation for constructing instruments for the sample survey.

Activities for FY 1976–Questionnaires have been administered to students, faculty, and administrators in 240 of the 1440 institutions that prepare teachers. Subsequent tasks include the conduct of case studies and the initiation of data-analysis activities. Reports on several topics will be completed including: Data Needs of Educational Decisionmakers; and, An Annotated Bibliography of the Literature on Teacher Education.

Plans for FY 1977–Data collection and analysis will be completed. A series of reports will be prepared describing the condition of and changes in teacher education institutions. Planning and development work for a full-scale survey in FY 78 will also be initiated.

Study of Inservice Teacher Education

The current concern regarding the surplus of teachers and the accompanying reduction of the teacher turnover rate has prompted a renewed emphasis on staff development programs. It has combined with fiscal crises in many school districts, teacher shortages in specific areas, and the increased effectiveness of teacher's organizations in ensuring continued employment for present teachers to make inservice education a major area of current decisionmaking. Thus, a strong data base of characteristics and trends in inservice education needs to be developed to determine the kinds of programs needed in this area.

To this end NCES and Teacher Corps have initiated a study of inservice education to establish a base for future large-scale surveys of practices and problems in inservice teacher education. Results will be interpreted in terms of policy implications for Teacher Corps, Bureau of the Handicapped, Office of Bilingual Education, and other programs in the Federal government that sponsor teacher-training activities.

Activities for FY 1976–An analytic review of the literature, position papers on issues in inservice teacher education, and a user-needs study to identify current data needs have been completed. Instruments are being designed to develop a survey of present practices in inservice teacher education. A pretest of the survey instruments, sampling plans, and delivery procedures is being conducted at Teacher Corps sites. Reports are being prepared during this fiscal year to include: a literature review, an assessment of user needs and an overview of findings to date.

Plans for FY 1977–A pilot survey will be conducted and data will be analyzed.

Teacher Collective Bargaining

Studies in this area will examine the status and impact of teacher collective-bargaining agreements. Some questions to be studied are: How many school districts have negotiated contracts? When were the contracts initiated? What types of districts have and do not have agreements? How many teachers are covered? What are the provisions of the agreements? Where feasible, the impact of teacher collective bargaining agreements on staffing patterns, budgets, and other aspects of school organization and provision of instruction will be studied.

Activities for FY 1976–Exploratory work to identify issues and user needs is being carried out, followed by design of survey instruments and data collection procedures.

Plans for FY 1977–A pilot study will be conducted and an implementation plan for a full-scale survey of characteristics of collective bargaining agreements will be proposed. Procedures for conducting impact studies will be developed and pretested.

LIBRARY GENERAL INFORMATION SURVEY (LIBGIS)

Libraries play a vital role in our society. They support instructional programs, research, and informal education. They also serve the needs of recreation and commercial activities. Library statistics are necessary for establishing standards for facilities and services, and for determining allocations in the areas of library resources, computer time, and research projects. Library statistics are also used in accreditation of academic institutions, in planning and developing new facilities, and by the private sector in determining directions and demands for new material.

The Federal Government has collected and reported statistics on public and academic libraries for over 100 years, and for school libraries/media centers for about half that time. In the early 1970's, NCES conducted a number of preliminary studies to provide a foundation for conducting a series of systematic surveys of virtually all types of libraries throughout the United States. These preliminary studies established the feasibility of using a core vocabulary (identical terms and concepts) for *all* libraries, and produced a workable set of cooperative arrangements for collecting data from State agencies.

The first Library General Information Survey (LIBGIS I) was initiated in 1974. It focused on public school libraries/media centers (sample of 3500), public libraries (sample of 1550), and academic libraries. Data collected from each type of library included information on resources (both print and nonprint media), expenditures, staffing, facilities, and hours of services.

Earlier NCES studies in the library field included: (1) the first complete survey of Federal libraries, carried out with the collaboration of the Library of Congress, and (b) a library manpower survey, carried out jointly with the Bureau of Labor Statistics, Department of Labor.

Activities for FY 1976–The first LIBGIS survey, mentioned above, is being published. Arrangements are being completed for conducting LIBGIS II, which will consist of:

(1) a Survey of Library Cooperatives, Consortia and Networks,
(2) a Survey of State Libraries and State Library Agencies,
(3) a Study of Libraries Serving Commerce and Industry, and
(4) a College and University Library Survey.

Plans for FY 1977–LIBGIS III, which is to update LIBGIS I, will survey college and university, public, school, and Federal libraries. The college and university libraries (3000 units) and Federal libraries (2400 units) are to be universe surveys; the public and school surveys will rely on national samples. These data will be processed in conjunction with data from the previous survey, and will result in a series of reports covering comparisons with previous findings of the surveys.

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

The National Assessment of Education Progress (NAEP) is an annual survey of the knowledge, skills, understandings, and attitudes of selected groups of young Americans. It is the only national data base that periodically provides a comprehensive and systematic accounting of what the Nation is achieving educationally and whether the schools are meeting the needs of a modern, technological society. The project focuses on two main questions: (1) What is the educational attainment of various population groups in major school-related subject areas? and (2) What are the changes in attainment over time, if any, in these areas? From its inception, the National Assessment has been construed as a means for locating areas of unequal achievement similar in concept to the "pockets of unemployment" and has been providing achievement data for various disadvantaged groups as well as for other groups. More recently, NAEP is being adapted to provide data on achievement in career and occupational preparation and on mastery of basic skills and knowledge.

NCES contracts with the Education Commission of the States for the collection, analysis, and reporting of achievement of a representative national sample of four age groups: 9-, 13-, and 17-year-olds, and young adults (aged 26-35). Results are summarized nationally for each age group by sex, race, geographic, region, size and type of community, and level of parental education.

Thus far, baseline assessments have been made for all 10 subject areas, and second assessments have been made in: science, writing, reading, and citizenship/social studies. Fifty reports on assessment findings have been published. Thirty-four States and a number of local education agencies are using materials, procedures, and findings from the project for the conduct of their own assessments.

Activities for FY 1976–Reports on the second assessment of writing (showing changes over a 4-year period of persons aged 9, 13, and 17) and the first assessment of career and occupational development for all four age groups are being published.

The second assessment of citizenship/social studies is being conducted.

Data analysis has continued for: writing (second assessment in 1974); career and occupational development (assessed in 1974); and reading (second assessment in 1975).

Materials for the second assessment of mathematics and the third assessment of science are being developed. Additional background variables are being included and materials for a basic-skills assessment are being developed to enhance the objectives of National Assessment.

Plans for FY 1977–The major reports to be published will address: changes in reading skills from 1971 to 1975; basic math skills performance of 13- and 17-year olds; additional results on changes in writing performance from 1970 to 1974; and interpretation of results on the second assessment of citizenship/social studies performance, and an analysis of changes in young people's perception of and knowledge about their roles in a democratic society.

A basic-skills feasibility and planning study, initiated in 1975, will continue to be analyzed in 1977, and objectives and materials will be completed for further work in this area.

Interpretive studies will be made of the usefulness of National Assessment findings in recommending curriculum changes and in decisionmaking. Development of additional test materials will continue.

Analysis Activities

The second mandate in the Education Amendments of 1974 requires that NCES "conduct and publish reports on specialized analyses of the meaning and significance" of education statistics.

NCES is engaged in the following types of analytic studies: developing new indicators, relating trends in educational time series to socioeconomic characteristics, and establishing relationships that facilitate policy analysis.

The first type of study, drawing on the comprehensive data bases acquired by NCES through its major collection and survey activities, concerns the development of indices useful for interpretive analyses. The second identifies key variables linking educational problems to broader social problems over time, and hence assists in formulating hypotheses of causality. The third examines patterns that will support development of conceptual schema for generating and then examining policy alternatives. Examples of these three study types are provided below:

DEVELOPING NEW INDICATORS

Indicators of Inequality of Educational Opportunity

This exploratory study has the following objectives: Increased knowledge of the actual and potential uses of indicators of inequality of educational opportunity at the elementary/secondary level by Federal planners and managers; improved understanding of concepts of inequality of educational opportunity; definition of a set of indicators to serve a range of policy purposes; measures of these indicators from currently available data; and recommendations for NCES data acquisition and analysis.

Activities for FY 1976–During FY 1976, the study was initiated with the analysis of previously collected data from 4,900 school districts on the Census/ELSEGIS data tape. Analyses are being directed to determine the relationships between resource measures such as per-pupil expenditures, pupil-teacher ratios, etc., and demographic characteristics of the school districts such as per capita income, adult educational level, percent single-parent homes, racial/ethnic composition, and the like.

Plans for FY 1977–Current analyses will be completed, and a report prepared, early in FY 1977.

Higher Education Inflation Measures

The Consumer Price Index of the Bureau of Labor Statistics (BLS) has become the principal measure of inflation (or deflation) in the American economy. It is accurate and usable to the extent that any particular consumer purchases those commodities in the BLS market basket in the same proportion as they appear in the market basket. The farther a particular consumer departs from this market basket, the less application the BLS Consumer Price Index has to its situation. Postsecondary educational institutions depart very widely from that market basket. They purchase, for instance, relatively little food, no clothing, or other goods that come into a household. They are, instead, labor intensive, purchasing various kinds of services and their purchases of goods include such things as laboratory equipment, office supplies, computer services, books, etc. Therefore, these institutions need their own Cost of Operation Index to permit them, and the various agencies that provide their resources, to make a more efficient "fit" between income and expenditures.

Activities for FY 1976–There have been a number of one-time efforts to measure the Cost of Operation in postsecondary education, but what is needed is a routinized, repetitive procedure that would permit the use of measures of costs over a long term. NCES is planning a procurement to develop such a procedure, using as a point of departure the developmental work of Kent Halstead of the Bureau of Postsecondary Education of the Office of Education.

Plans for FY 1977–In fiscal year 1977 NCES will let a contract to develop a formula and procedure that will permit the publication, at a fixed date each year, of the current Cost of Operations in postsecondary education.

Output Indicators for Postsecondary Education

NCES has begun the planning for an exploratory study of output indicators for postsecondary education. Planning and evaluation of Federal and State programs of financial assistance in postsecondary education are dependent on measures of student performance, survival, or postschool experience. For example, information gained from this study can make a contribution to the

NCES National Longitudinal Survey, the postsecondary core of the Common Core of Data, and the analysis of program benefits for student aid programs in the U.S. Office of Education.

Activities for FY 1976–During this fiscal year, NCES is defining an exploratory study to: develop a conceptual structure for output indicators in postsecondary education; determine the needs of Federal agencies for these indicators; identify and evaluate existing data sources and files; determine the adequacy and cost of direct and derived measurement; design a sample set of indicators; and recommend NCES strategy to revise its data acquisition and analysis program.

Plans for FY 1977–During fiscal year 1977, NCES will let a contract to implement the exploratory study and to provide a basis for future development in this area.

RELATING TRENDS IN EDUCATION TIME SERIES TO SOCIOECONOMIC CHARACTERISTICS

Development of Analytic Studies of Trends in Higher Education

Characteristics of higher education are reported annually from data collected in the Higher Education General Information Survey, (HEGIS). Data for the 10-year period 1965-1975 are currently available for analysis, and various topics are being selected for study of developing trends in higher education.

Activities for FY 1976–Ten-year trend studies are comparing changes in the number of postsecondary institutions by type of control, and level of program (2-year, 4-year) for each State. These studies will identify first-time enrollments by sex, by type of control, and by level of program. The relationships between enrollments in public postsecondary institutions and graduates of public high schools will then be examined.

Another area of current analysis concerns changing trends in degrees among fields of study, with particular emphasis on the changing status of women. One part of this analysis focused on trends in applications, enrollments and degrees in the professional fields of medicine, dentistry, veterinary medicine and law. Another part is focusing on changes among fields at bachelor's, master's, and doctor's levels, attempting to discover any relationship between such changes and labor market projections in selected fields.

Plans for FY 1977–Relationships among other changes occurring during the period 1965-1975 are scheduled for analysis. These include earned degrees conferred, staffing patterns, and finance. Where appropriate, data will be analyzed by sex, type of control and institutional level, faculty rank, length of service, sources and levels of institutional support, and changes in expenditure patterns. Updating of the trend series on a regular basis is planned as HEGIS data are added from each annual survey.

ESTABLISHING RELATIONSHIPS THAT FACILITATE POLICY ANALYSIS

Characteristics of Dropouts

Many educationally relevant analyses, such as the NCES analysis of the characteristics of dropouts, can be derived from data collected through the decennial census.

Activities for FY 1976–In fiscal year 1976, data from the 1970 decennial census on the socioeconomic and racial backgrounds of youths aged 15-19, who were then not attending school and who had not graduated from high school, were assembled and are now being compared with data on youth who remained in school.

Plans for FY 1977–Among other uses, these analyses will provide a partial basis for planning and design of future cohorts parallel to the National Longitudinal Study of the High School Class of 1972 (discussed elsewhere in this report).

Anchor Test Data Analyses

The Anchor Test study developed techniques for translating scores on eight commonly used reading-achievement tests into a common metric based upon one of them, the Metropolitan

Achievement Test (MAT). The MAT was renormed on a nationally representative sample of 4th-, 5th-, and 6th-grade pupils. The present study uses test data in conjunction with information on participating schools to investigate the relationships between reading achievement scores and a number of socioeconomic and demographic variables, such as control and location of school, school socioeconomic levels, percent minority groups, class size, ability levels, and remedial-reading diagnosis. The data for analysis are based upon the 5th-grade sample of 65,000 students, using the Total Score from the Metropolitan test only.

Activities for FY 1976—A contract for these analyses was let early in FY 1976, and the analyses are well underway.

Plans for FY 1977—The analyses are expected to result in the following reports to be completed early in FY 1977: (1) comparison of reading achievement of public school children with that of nonpublic school children; (2) comparison of reading achievement of public school children attending schools with differeing socioeconomic status levels; (3) comparison of reading achievement of public school children of different racial and ethnic origins; (4) effect of class size on reading achievement; (5) effect of ability grouping on achievement; (6) study of the effects of data aggregation on the results of studies of reading achievement.

Policy Issue Analyses in Postsecondary Education and Work

To help Federal policymakers effectively use the National Longitudinal Study data, a series of major policy issues have been identified and contracts let to study the implications for each policy issue. These studies will attempt to elucidate what the NLS reveals about existing policies and programs and the potential effects of new policies affecting the future of American Education. Three of these studies (access, demand, and student financial aid) relate directly to postsecondary education. A fourth one is investigating the transition from high school to work. In each case, the contractor is expected to formulate and rationalize various models to explain secondary students' behavior and subject them to test, using the NLS data base.

Activities for FY 1976—During this fiscal year, these contracts will be in progress, drawing on the base year data and first followup data (and to some extent second followup data) from the NLS study.

Plans for FY 1977—Reports are expected early in FY 1977 and will provide the basis for decisions regarding similar additional analyses, which then may be scheduled for the latter part of the fiscal year.

Access to Postsecondary Education

Special analyses of data from households sampled by the Bureau of the Census in the May 1974 Current Population Survey have been designed to describe characteristics of subgroups of young adults who do or do not participate in postsecondary education, actual or intended sources of financial assistance, and perceived barriers to educational goals.

Activities for FY 1976—Analyses have been carried out during the current fiscal year, and reports are in preparation. Several reports are planned and should be available by the end of the fiscal year.

Plans for FY 1977—Any remaining reports will be completed and released. Based on these reports and other considerations, decisions will be made regarding further contracting for analysis.

Analysis of the Educationally Handicapped

As is described more fully under NCES' bilingual mandated study, NCES is participating with the Bureau of the Census in an omnibus Survey of Income and Education (SIE), to be carried out during the Spring of 1976. Questions covering income, education, bilingualism, and education handicaps will be included for a nationally representative sample of almost 200,000 households. Subsequently, those children (ages 4-13) identified as having a handicapping condition(s) which interfere(s) with their ability to do regular school work or to participate in regular play activities will be resurveyed in more depth.

Activities for FY 1976—Basic data for the SIE will be collected and arrangements will be made for collection of the resurvey data on the handicapped children in October 1976.

Plans for FY 1977—The resurvey of the target group children will be carried out and special analyses will be conducted. For the educationally handicapped target group, the SIE respondents' perception of children's handicapping conditions will be compared with the schools' perceptions of the same children. Data on screening programs, program participation, and services received will be obtained for each child in the target group. This information is needed for policy formulation and legislation development. School records will also be reviewed for other student characteristics.

In addition to estimating the number of children with and without target group characteristics, the study will determine the extent to which legislatively defined target groups overlap. This project will also serve as a pilot study to determine the problems involved in linking household and school data bases.

STATISTICAL ANALYSIS GROUP IN EDUCATION (SAGE)

To fulfill its analysis mandate, NCES must develop and maintain technical capabilities at least equal to the state-of-the-art in dealing with analytic inquiry, and in developing and applying statistical and survey methodology. To provide a high technology resource, and to obtain efficiently the solution to specific problems in these areas, NCES has initiated a contracting procedure to establish a statistical analysis group in education. The selected contractor will work closely with NCES personnel in identifying and solving specific problems, and NCES will develop an internal mechanism to assist in implementing such solutions.

Activities for FY 1976—It is expected that a contract will be let in this fiscal year. An example of the type of problem to be assigned to the contractor is development of a "cost of education index." (See the previous discussion of Higher Education Inflation Measures for description of the index concept.) This study, to be initiated during fiscal year 1976, will investigate the requirements for an index to permit unbiased assessment of regional and community differences in component costs of elementary and secondary education. Problems in constructing the index for particular levels of education, instructionsl programs, regions, or target groups will be studied, and recommendations for development of an index formulated. To the extent possible, existing data will be employed to develop and assess various possible indices.

Plans for FY 1977—During this fiscal year, the contractor will continue to work on the specific problem assignments developed during the first year. Solutions and recommendations, as they are developed, will be relayed to NCES for consideration and possible implementation. It is anticipated that a continuing flow of specific problems will require continued contractor efforts through this fiscal year. Reports and publications will be released as appropriate.

Assistance to State and Local Education Agencies

The third mandate in Education Amendments of 1974 requires that NCES "assist State and local educational agencies in improving and automating their statistical and data collection activities." NCES has defined assistance as the provision of both technical and financial resources to enable State and local elementary/secondary and postsecondary agencies and institutions to improve the quality and timeliness of statistical reports that are: required by the agencies for their own use; essential for those who allocate resources of all types to the educational entities; and needed by those responsible for planning long- and short-range education programs, including institutions, local school districts, State educational agencies, and various segments of the Federal Government.

To address the needs of each of the State and local agencies and institutions, across all levels of education, would require manpower and dollar resources of a scope far broader than presently available. Thus, NCES is currently pursuing a two-phase strategy to address the goals and objectives of the information systems assistance program. To determine the longer term activities which should be supported, NCES is working cooperatively with representatives of the States in elementary-secondary and postsecondary education. To provide assistance for the near term, NCES is proposing a limited set of activities that will contribute to improvement of data production and utilization at the State, local, and institutional levels.

These activities have been discussed with representatives of the Chief State School Officers, the State Higher Education Executive Officers Association, the Education Commission of the States, and the National Center for Higher Education Management Systems.

The two broad goals defined for the Center's information systems assistance program are: improvement of data production, and improvement of data utilization. To improve data production, NCES will sponsor activities to: improve comparability of data that meet Federal and State information needs, increase data timeliness and quality, encourage exchange among data producers of technical tools and expertise, and eliminate redundancy between Federal and State data-collection activities. To improve data utilization, NCES will support projects to: develop products for improved data use in decisionmaking at the State level, produce and disseminate expanded data sets using the broadest available information resources, and encourage exchange among data users of technical tools and expertise.

Activities for FY 1976—Plans for FY 1977

Improvement of Data Production—To improve data comparability, NCES will complete specific manuals of standard terminology and initiate handbook implementation activities. During FY 1976, the postsecondary student manual will be completed and development of a combined taxonomy for curricula across all educational levels will be initiated. In addition, the Community Characteristics Handbook will be refined through field testing at the State level, and a comprehensive training program for implementation of the Higher Education Finance manual will be undertaken. During FY 1977, the combined glossary of data standards will be expanded and automated, and development of a handbook of terminology for adult/continuing education will be initiated. Implementation activities will be expanded through development of program-accounting guidelines for special education and initiation of training programs for data standards and recordkeeping at the elementary-secondary level.

Efforts to increase data timeliness and quality will focus on activities to strengthen State capabilities and to enable NCES to decentralize data collecting, editing, and validation responsibilities to the State level. In addition to these initiatives, which will be tied to the Center's implementation of the elementary-secondary and postsecondary data cores, NCES will meet this objective in FY 1976 by providing training to State agency personnel in data-base management and in FY 1977 by assisting in evaluation of State-level statistical services.

To encourage exchange among States of technical tools and expertise NCES will develop in FY 1976 and implement during FY 1977 a technical-information exchange service to enable the States to capitalize on information-systems developments in counterpart agencies.

Continued efforts to integrate Federal and State data-collection activities through implementation of the Federal data cores will be the focal point of the Center's effort to eliminate redundancy in data-collection activities. Supplementing the data-core program in FY 1976 will be the Center's provision of training to State-level personnel in design and development of data-element catalogues and data-collection plans, and in FY 1977 an NCES project to develop guidelines for State adherence to Federal data-collection requirements with respect to privacy and confidentiality.

Improvement of Data Utilization—Development of products to improve data utilization for planning at the State level will include support for projects resulting in exemplary analysis models and systems of State indicators. During FY 1976, NCES will provide training to State-level personnel in using data to be produced in the Federally sponsored Survey of Income and Education, and will investigate the feasibility of developing State-level teacher supply/demand information systems. Beginning in FY 1976 and continuing through FY 1977 will be additional projects to develop products for improved use of data in State-level decisionmaking, including design of financial indicators for postsecondary education and development of an information system for planning and managing student-assistance programs at the State level.

NCES will build on the EDSTAT System to produce and disseminate expanded data sets for State, local and institutional planners. During FY 1976, State summary data on postsecondary education will be added to the EDSTAT files, and studies will be conducted to determine both the types of modifications to the EDSTAT data base and software and the kinds of assistance necessary to facilitate State utilization. In addition, NCES, during FY 1976, will begin development of demonstration packages for EDSTAT applications relevant for State use and will initiate training workshops for potential EDSTAT users. Supplementing the training and demonstration activities in FY 1977 will be the incorporation of postsecondary institutional profile data into the EDSTAT System. To complement these EDSTAT-specific activities, NCES will develop a handbook on use of Federally available education statistics.

International Education Statistics

The fourth mandate in the Education Amendments of 1974 requires that NCES "review and report on educational activities in foreign countries." The NCES program for foreign statistics includes activities to: improve the quality and comparability of international statistics relating to education and other social concerns; identify policy areas amenable to examination or interpretation through comparative studies; and conduct and report such studies as have been identified as relevant and of policy interest.

The objective of the program is to use foreign experience as a context within which to observe and examine the expected outcomes of a range of policy alternatives. Educational activities in other countries offer experience distinct from our own. Data describing these activities constitute a resource that can be of great use to educational decisionmakers in our own country, provided the data are reported within an easily interpretable context relating social, demographic, and policy variables.

The educational policy issues to be addressed through specific studies will be those for which the experience of developed countries offers interesting and plausible alternatives to United States experience. Both specific studies, which compare educational systems and more general studies, which trace the effects on educational systems of economic and social trends, will be included.

Exemplary issues that focus directly on the educational system are the percentages of the population, for different age groups, enrolled in school; the organizational units for schooling in other countries and their relation to curriculum offerings and selectivity of enrollment; and patterns of participation in school for different age groups, especially the combining of work and education experiences among young adults.

More general issues to be examined will place educational activities within a social and economic context. Of particular interest are the responses of other educational systems to population changes, including expansion and contraction of the size of particular cohorts, due to changing birth rates and mobility. Another area of study for which comparative experience is useful is the responses of educational systems to periods of rapid inflation and resultant financial pressures, especially as education competes for funding with other social services.

The early emphasis of the program in reporting statistics on other countries will thus be on selecting activities and studies that promote development of ongoing, comparable, and current data bases and demonstrate the utility of comparative studies.

Additional data-collection is not contemplated. Emphasis, instead, will be on coordination with officials in both the United States government and in international data-collection agencies and on assembling existing data within contexts offering insights on the probable effects of alternative policy decisions.

Activities for FY 1976–An Internationl Studies Plan that specifies topics for study will be developed by the end of FY 1976. The plan, which will present study options within an indicator framework, will be prepared in cooperation with staff in the Education Division working in the areas of international education and policy development.

NCES will continue active participation in a project sponsored by the United Nations to develop an integrated System of Social and Demographic Statistics (SSDS). Discussions of the system are expected to contribute to development of social statistics for the United States.

Participation in education and expenditures on education for a group of selected countries have been reviewed in a study prepared by the Organization for Economic Cooperation and Development. Results of the study appear in this publication.

A study entitled, "A Comparative Analysis of Teacher Supply and Demand in Four Countries," which compares the problem of supply and demand of elementary and secondary school teachers in the United Kingdom, Sweden, the Republic of West Germany, and the United States will be completed in FY 1976. It is anticipated that supply-and-demand forecasting, estimating, and the projecting methodologies employed in the other countries will provide educational institutions and governmental agencies in the United States with insights to effect planning efforts concerning elementary and secondary school education personnel.

A study being conducted in conjunction with the American Statistical Association is assembling data on education in six Latin American countries. The initial effort, to be completed in FY 1976, will collect data in three areas: teacher supply and demand, teacher preparation, and the numbers of both handicapped pupils and the staff serving them.

Plans for FY 1977–NCES' plans for FY 1977 will include continuing participation in promoting standardization of international statistics, being conducted by UNESCO and the OECD, and preparing specific studies identified through the development of the Plan for International Studies.

Specially Mandated Activities and Studies

In addition to the general mandates expressed in the Education Amendments of 1974, NCES' responses to which are discussed in the above sections of this report, the law also contains mandates for a number of specific studies and activities. Some of these were directed to other agencies, but several were specifically directed to NCES. This section describes NCES' responses to each of these specially mandated activities and studies.

Confidentiality

The Center's activities and plans to protect the confidentiality of data pertaining to individual respondents derive from P.L. 93-380, section 501, which requires that, "The Center shall develop and enforce standards designed to protect the confidentiality of persons in the collection, reporting, and publication of data under this section". In conjunction with this mandate, regulations and standards are being authored, implemented, and enforced, as the various other statutes require. During FY 1976, activities were devoted principally to implementing the Privacy Act of 1974 [5 USC 552(a)]. On October 1, 1975, NCES gave public notice in the *Federal Register* of its systems of records under the Act. Subsequently the focus has shifted to establishment of computer-system security, personnel training in confidentiality procedures, and other aspects of implementation of the Privacy Act.

As the privacy requirements are being satisfied, NCES is undertaking a complete review of its confidentiality standards. An NCES task force is preparing a statement of policy and standards, together with recommendations for implementing the law. Upon completion of its review, NCES will adopt and implement an explicit code. These standards will also serve as "protections" for survey participants, paralleling the "Protections for Human Subjects" now extended to HEW experimental subjects.

NCES also participated in development and review of HEW regulations originating under the "Buckley Amendment" [Sec. 513(a) of the Education Amendments of 1974]. First published in proposed form in FY 1975, these rules are expected in final form by the time this report goes to press. Upon publication of these regulations, an HEW task force will then develop a second set of regulations under the same section in support of the requirement that HEW "adopt appropriate regulations to protect the rights of privacy of students and their families in connection with any surveys or data-gathering activities conducted, assisted, or authorized by the Secretary . . ."

Finally the Center is assessing the new privacy/confidentiality requirements in light of its statistical mission. The size of any gain in privacy is to be weighed against potential losses in data quality, added costs (in terms of time, manpower, and finances), as well as any increase in the burden placed upon data suppliers. New methodology and action may be required for the Center to balance its traditional concern for confidentiality with its statistical mission.

Federal Interagency Consortium

To make education data more accessible, NCES is participating, with Federal agencies interested in collection and use of education statistics, in the Federal Interagency Consortium of Users of Education Statistics, as authorized by the Education Amendments of 1974 (P.L. 93-380). Among the more than 30 agencies participating in the consortium are: the Library of Congress, the General Accounting Office, the Senate Committees on Labor and Public Welfare and on Appropriations, and the House Committees on Education and Labor and on Appropriations as well as a number of Executive Branch agencies.

Consortium members agreed that the availability and accessibility of education data obtainable from Federal agencies were first priorities. The major product of the consortium during the 1976 fiscal year is a *Directory of Federal Agency Education Data Tapes* (in press), which identifies and describes education data bases available on magnetic computer tape from agencies of the Federal Government. Information is available in the directory for tapes containing data on elementary and secondary and postsecondary education; demographic, vital, health, and welfare characteristics; manpower supply and demand; libraries and media centers; and Federal outlays for education.

During fiscal year 1977, NCES will continue to work with the consortium toward expansion of the scope and number of its products. Areas for consortium consideration will include: user needs and priorities, standardization problems, and utilization of data for cross-agency analysis. An updated *Directory of Federal Agency Data Tapes* will be produced and other products considered.

Condition of Education

The annual Condition of Education report is submitted March 1 by the Assistant Secretary for Education in accordance with section 501(a) of the Education Amendments of 1974. It includes statistics related to education in the United States and a presentation of NCES' activities and program costs for the current and succeeding fiscal years. The report presents information within a social-indicators framework.

The 1976 edition of this report, presenting statistics on the condition of American education in a primarily graphic format, contains a broad overview of American Education, portrayed in summary statistics describing students and schools, outcomes of schooling, and particular concerns of elementary/secondary education. Going beyond this overview, five topical areas have been selected for more detailed and intensive treatment: postsecondary education participation, relationships between education and work, education personnel, elementary and secondary school finance, and education in the U.S. and foreign countries.

During the coming fiscal year, a multiyear plan will be developed for this report. Tentatively, this plan will evolve from the report's current organization into an overview plus more detailed treatment of selected topics repeated on a periodic basis. Responses to the present edition from the Congress and the educational community will provide input for the coming years. These reactions will be used to determine acceptance of the proposed format, data gaps to be filled, and the frequency of treatment of the selected topical emphases. In addition, future editions will utilize direct contributions from educators and a wide variety of other informational sources as inputs to the content and organization of the report.

Bilingual Education

Section 731(c) of the Bilingual Education Act, Title VII, ESEA, as amended by P. L. 93-380, mandates the Commissioner of Education to report twice, during fiscal years 1976 and 1978, on "... the condition of bilingual education in the Nation ..." and related matters including "... national assessment of the educational needs of children and other persons with limited English-speaking ability and of the extent to which such needs are being met from Federal, State, and local efforts, including, not later than July 1, 1977, the results of a survey of the number of such children and persons in the States ...". Section 501(b)(4) of Public Law 93-380 mandates the National Center for Education Statistics to carry out this survey.

A major purpose of the reporting is to provide an adequate basis for assessing the number of teachers and other education professionals and nonprofessionals needed to provide programs of bilingual education to school-age children and adults of limited English-speaking ability not presently served.

To begin to meet this mandate, NCES prepared a supplement to the July 1975 Current Population Survey conducted by the Bureau of the Census. Results from this survey provide estimates of the numbers of children and adults from non-English environments in the Nation; this survey, in addition, served as a pilot study for a large-scale population survey (see SIE, below) to be conducted during Spring 1976. Data from the CPS supplement are being reported in the first mandated Commissioner's Report on the condition of bilingual education, early in 1976. To complement the population data, NCES surveyed State education agencies in fall 1975 about limited-English-speaking-ability persons being served in bilingual education programs. These State data will be reported in fiscal year 1976. Another survey is currently collecting data from all institutions of higher education on the numbers of teachers and other personnel being prepared for programs of instruction for persons of limited English-speaking ability, including bilingual education programs. Results will be available early in fiscal year 1977.

The Center's main response to the bilingual education mandate is embodied in the Survey of Income and Education (SIE), to be carried out by the Bureau of the Census in spring 1976. The major portion of the SIE will be devoted to the count of children in poverty mandated in section 822(a) of P.L. 93-380. The SIE includes a set of questions on language background and language usage, similar to those asked in the supplement to the July 1975 CPS. In addition, questions designed to measure English-language proficiency will be included, making possible national and State estimates by age and by major language groups of persons with potential need for bilingual education programs. In response to NCES needs, the Bureau of the Census modified the SIE sampling plan to permit development of State estimates of the need for bilingual education programs.

To supplement the information collected and reported through the above surveys, NCES plans two additional activities to be initiated early in fiscal year 1977. The first will collect program and service data in elementary schools for children (age 4-13) identified in the SIE as being either of limited-English-speaking ability or educationally handicapped. This survey would be conducted by the Census Bureau in October 1976. At the same time, NCES will conduct another survey to determine national estimates of the number of public school teachers presently providing bilingual education or teaching children with limited English-speaking ability, as well as the number of teachers qualified to do so but not currently being utilized in this capacity. These data will be combined with data from the other NCES surveys to estimate the number of staff required to provide bilingual education to children and other persons with limited English-speaking ability from non-English dominant backgrounds. Again, information from these surveys will supply data necessary to meet the Congressional mandate to "assess the condition of bilingual education in America." In all bilingual education survey activities, NCES works closely with USOE's Office of Bilingual Education and Office of Planning, Budget, and Evaluation, which will carry out the bilingual education planning with the survey data as called for in section 731(c)(1)(B) of the Bilingual Education Act, title VII of the Elementary and Secondary Education Act of 1965, as amended by P.L. 93-380.

Impact Aid

Congress has expressed concern that a study of the SAFA program (School Assistance in Federally Affected Areas) be conducted to identify the type and location of Federal facilities, the number of children living with parents who live or work on such facilities, the number of parents employed on such facilities, and an estimate of the economic impact of the presence of Federal property on local education agencies, along with estimates of the per capita income of residents living within the boundaries of local education agencies receiving impact aid.

NCES prepared two reports: one showing the number of impact-aid children by type of Federal property and by applicant local education agency (LEA) derived from SAFA application data; the second listing the per capita income of SAFA applicant districts based upon 1970 Census data. These reports were transmitted to the cognizant Congressional committee chairman in late August 1975. The transmittal letter also indicated that NCES had contracted to examine means of estimating economic impacts of the Federal presence on LEA's and to provide alternative research designs, along with discussions of feasibility, policy relevance, and data limitations, and cost estimates for each. This contract was completed in late September 1975. Staff from NCES and other DHEW agencies jointly developed the work statement for this contract and have reviewed the contractor's final report. Based upon this report and its reviews, NCES will recommend implementation of a research design. It is expected that a contract for this purpose will be let in the near future, to be carried out during fiscal year 1977.

Safe Schools

Section 825 of the Education Amendments of 1974 required that the Secretary of Health, Education, and Welfare conduct a study to determine the extent of crime in the schools, property losses suffered as a result of unlawful activity, and effective methods employed by school and other officials to prevent and control such criminal activity. Responsibility for the study was assigned to the Education Division.

The extent of crime in the schools, by location and level of schools, is being determined by an NCES survey of offense rates and property losses. A survey instrument, covering the period from the beginning of the 1974-75 school year through January 31, 1975, was mailed out to State and local school officials. The survey, covering a sample of approximately 8,000 public and nonpublic schools, was designed to acquire data on the number of offenses committed on school facilities that school officials reported to local law-enforcement officials during the reporting period and the total dollar cost to repair or replace supplies, equipment, and school facilities damaged or destroyed as a result of arson, burglary, bombings, and vandalism. Data from the survey have been received and are being processed by a contractor. Tables providing State estimates will be completed in early spring 1976.

A complementary research study, initiated during the current school year, is being carried out by the National Institute of Education to examine the schools' methods of crime prevention and reduction and to assess the effects of such methods on instructionl. The Secretary will prepare for submission to Congress during fiscal year 1977 a consolidated report, based on the survey and research studies, delineating the extent and seriousness of crime in the schools and containing legislative recommendations based on the findings.

Athletic Injuries

Section 826 of the Education Amendments of 1974 required that the Secretary of Health, Education, and Welfare collect, for a 12-month period, data on athletic injuries and deaths from secondary schools and from institutions of higher education, and that he determine the numbers of injuries occurring at schools with and without medical or health-professional personnel trained to prevent or treat injuries. The Secretary was directed to request each school to maintain appropriate records to enable it to provide the necessary data.

To keep within the statutory fund authorization for this survey and to minimize the recordkeeping burden on the education community, a sample effort involving approximately 3,800 schools and colleges was initiated in fiscal year 1975, to be completed early in fiscal year 1977. Each school and college in the sample was asked to complete a form indicating the name, title, and address of the person to contact for the survey and specified information about injuries. Forms were then supplied upon which to keep the appropriate records. As of June 30, 1976, the school will be asked to report on all athletic injuries that occurred during the preceding 12 months involving absence from competition or practice of at least 1 day, by sex, major category of sport, and whether or not an athletic trainer or other medical or health person was available. The school will be invited to make comments.

These returns will be collected, followups conducted, and analytic tables prepared. Based upon these results, the Secretary will prepare a report, along with recommendations, for submission to the Congress early in fiscal year 1977.

Sex Discrimination in Education

A review of sex discrimination in education, to be completed within a year, was mandated by the Women's Educational Equity Act of 1974 (Sec. 408, Education Amendments of 1974) for submission by the Commissioner of Education to the Office of Education's Advisory Council on Women's Educational Programs. In response to the mandate, NCES administered three projects that examined the major issues, and reviewed and analyzed existing research and statistical data in three areas: employment practices of professional personnel in educational institutions and agencies, guidance and counseling in secondary and postsecondary education, and access to postsecondary education. Although each study focused on its particular subject, the interrelatedness of the three topics produced a fairly comprehensive picture of the global problems related to sex discrimination in education. Over one-half of all employed women with 4 or more years of postsecondary education are employed by educational institutions and agencies. The report on employment practices examined the status of these professional personnel to determine the circumstances that militate against equity in appointments, promotions, salaries, and fringe benefits and to identify barriers that originate in the attitudes of women about themselves and in those of society.

Conversely, the study of access to postsecondary education identifed and investigated some inhibiting (and facilitating) factors concerning the attitudes and perceptions of women in relation to their pursuit of education as measured by participation rates in educational activities; the impact of personal background and socialization variables; and selected institutional practices, such as secondary school counseling, recruitment and admissions to higher education, financial aid programs, etc.

The third study focused on the influences within guidance and counseling that contribute to sex discrimination, particularly at the secondary and postsecondary levels. The topics included the effects of personality (student's and counselor's) background, and attitudes on the counseling process; counselor training and certification; theories and textbooks; tests and other guidance materials; and new approaches to counselor training and counseling procedures.

The reports were completed and transmitted to the Commissioner of Education in February 1976.

COSTS FOR FISCAL YEAR 1977 ACTIVITIES

Budget Line Items	Mandate[1]	1977 Estimate
I. Surveys and Special Studies		**$ 7,056,000**
A. Data collection		
Changing Nature of Postsecondary Education	1	
Trends in Elementary/Secondary Education	1	
Financing Public Schools	1	
Educational Personnel	1	
Library General Information Surveys	1	
Foreign Statistics	4	
Mandated Studies	Special Mandates	
B. Statistical Policy Development and Data Interpretation		
Studies to Support Analytic Interpretation	2	
Federal Agency Cooperation	2	
Condition of Education Report	Special Mandate	
C. Data Dissemination and Special Services		
Publications	1	
Respondent Requests	1	
EDSTAT	1	
Federal Interagency Consortium	Special Mandate	
II. Common Core of Data		**$ 1,044,000**
A. Core Design	1	
B. Assistance and Handbooks	3	
III. National Assessment of Educational Progress	1	**$ 4,900,000**
		$13,000,000

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[1] NCES activities arranged by the four general mandates in Section 501(a), P.L. 93-380 are "(1) collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; "(2) conduct and publish reports on specialized analyses of the meaning and significance of such statistics; "(3) assist State and local educational agencies in improving and automating their statistical and data collection activities; and "(4) review and report on educational activities in foreign countries. "Special mandates" refers to specific studies and activities mandated by P.L. 93-380.

☆U.S. GOVERNMENT PRINTING OFFICE: 1976—0-221-603